CURRICULUM VITAE

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1. Professional Background

A. Education

Agregação (habilitation)	University of Coimbra, Jul. 2014
Ph.D.	*Computer Science,* University of Coimbra, Dec. 2005 Dissertation: Dependability Benchmarking for Transactional Systems
M.Sc.	*Computer Science,* University of Coimbra, Apr. 2003 Dissertation: DBMS Recovery and Performance in the Presence of Operator Faults
Eng. Degree	*Informatics Engineering,* University of Coimbra, Feb. 1999
B.Sc.	*Informatics and Systems Engineering,* Polytechnic Institute of Coimbra, Jul. 1996

B. Academic and Research Appointments

Professor	University of North Carolina at Charlotte	Oct. 2023 – present
Full Professor	University of Coimbra	Mar. 2017 – Sep. 2023
Director	Centre for Informatics and Systems of the Univ. of Coimbra	Sep. 2015 – Oct. 2017
Associate Professor	University of Coimbra	Dec. 2015 – Mar. 2017
Assistant Professor	University of Coimbra	Mar. 2006 – Oct. 2015
Adjunct Associated Teaching Professor	Carnegie Mellon University	Aug. 2008 – Aug. 2013
Teaching Assistant	University of Coimbra	Mar. 2005 – Feb. 2006
Researcher	University of Coimbra	Sep. 1999 – Feb. 2005
Teaching Assistant	Polytechnic Institute of Coimbra	Mar. 1999 – Feb. 2005

C. Administrative Appointments

Associate Chair	Dept. of Informatics Engineering, University of Coimbra	Nov. 2017 – Sep. 2023
Member (elected)	Scientific Advisory Board, Faculty of Sciences and Technology of the University of Coimbra	Oct. 2017 – Oct. 2019
Member (elected)	Scientific Advisory Board, Centre for Informatics and Systems of the University of Coimbra	Jan. 2012 – Sep. 2015
Associate Chair	Dept. of Informatics Engineering, University of Coimbra	Nov. 2011 – Nov. 2013
Associate Dean	Faculty of Sciences and Technology of the Univ. of Coimbra	Feb. 2010 – Jan. 2012
Member (elected)	Scientific Advisory Board, Dept of Informatics Engineering, University of Coimbra (elected in 7 elections)	Apr. 2010 – Sep. 2023

2. Instruction

A. Courses Taught

University[1]	Course	Level[2]	When
UNC Charlotte	Database Systems (ITCS 6160/8160)	MSc/PhD	Summer/2026
UNC Charlotte	Cloud Computing for Data Analysis (ITCS 6190)	MSc/PhD	Summer/2026
UNC Charlotte	Database Design and Implementation (ITSC 3160)	BSc	Spring/2026
UNC Charlotte	AI-Driven Trustworthy SW Dev. (ITCS 6010/8010)	MSc/PhD	Spring/2026
UNC Charlotte	Cloud Computing for Data Analysis (ITCS 6190/8190)	MSc/PhD	Spring/2026
UNC Charlotte	Cloud Computing for Data Analysis (ITCS 6190/8190)	MSc/PhD	Fall/2025
UNC Charlotte	Cloud Computing for Data Analysis (ITCS 6190/8190)	MSc/PhD	Spring/2025
UNC Charlotte	Cloud Computing for Data Analysis (ITCS 6190/8190)	MSc/PhD	Fall/2024
UNC Charlotte	Cloud Computing for Data Analysis (ITCS 6190/8190)	MSc/PhD	Spring/2024
UNC Charlotte	Database Design and Implementation (ITCS 3160)	BSc	Spring/2024
UC	Systems, Software, Security and Communications	PhD	2021
UC	Database Management Systems	UG	2021
UC	Databases	UG	2020
UC	Secure Software	MSc	2017 – 2022
UC	Dependable and Secure Systems	PhD	2017 – 2019
UC	Project Management	MSc	2016 – 2022
UC	C Programming	UG	2014 – 2018
UC	Databases	UG	2009 – 2017
UC	Advanced Topics on Data Processing and Analysis	PhD	2009 – 2012
CMU/UC	Managing Software Development	MSc	2007 – 2012
CMU/UC	Managing Technical People	MSc	2007 – 2012
CMU/UC	Introduction to the Personal Software Process	MSc	2007 – 2009
UC	Data Analysis	PhD	2007 – 2008
UC	Business Intelligence	MSc	2007
IPG	Advanced Topics on Databases	UG	2007
UC	Software Engineering	UG	2006 – 2007
UC	Advanced Topics on Data Management	PhD	2006
UC	Managing Software Projects	UG	2006
ISCTEM	Mobile Computing	UG	2006
UC	Databases	UG	2005 – 2008
UC	Informatics Systems	UG	2005
UC	Discrete mathematics	UG	2005
UC	Computer Architectures	UG	2005
IPC	Information Systems Planning	UG	2000 – 2005
IPC	Projecting Information Systems	UG	2000 – 2003
IPC	Databases	UG	1999 – 2005
IPC	Advanced Databases	UG	1999 – 2003
IPC	Software Engineering	UG	1999 – 2002

[1] **Charlotte:** University of North Carolina at Charlotte; **UC**: University of Coimbra; **CMU**: Carnegie Mellon University: **IPC**: Polytechnic Institute of Coimbra; **IPG**: Polytechnic Institute of Guarda; **ISCTEM**: Institute of Sciences and Technology of Mozambique

[2] *UG*: Undergrad; *MSc*: Master Program; *PhD*: Doctoral Program

B. Graduate Students

Post-Doctoral

Name	Area of Work (University[1])	Period
Gustavo Callou	Dependability and security modeling (UC)	Feb. 2023 – Mar. 2024
Sandino Jardim	SDN, benchmarking (UC)	Feb. 2023 – Mar. 2024
Helber Wager da Silva	Survivable safety-critical systems (UC)	Jan. 2022 – Dec. 2022
Fernando Aires	IoT Security (UC)	May 2019 – Dec. 2019
Naghmeh Ivaki	Trustworthiness assessment (UC)	Jan. 2017 – Jan. 2022
Ivano Elia	Cloud security (UC)	Jul. 2016 – Jul. 2017
Nuno Antunes	Security of safety critical systems (UC)	Jun. 2014 – Jul. 2016
Vincent Naessens	Mobile security (UC)	Jun. 2014 – Set. 2014
Ivano Elia	Web services interoperability (UC)	Apr. 2013 – Nov. 2015
Javier Camara	Self-adaptive systems (UC)	Jan. 2011 – Mar. 2013

Doctoral – Graduated

Student's Name	Title of the Dissertation (University[1])	Degree Received
Charles Gonçalves	Security in Virtualized Systems: Contributions on Anomaly Detection and Intrusion Injection (UC)	Jul. 2025
Matheus Torquato	Models for Availability and Security Evaluation of Time-based Virtual Machine Migration as Moving Target Defense (UC)	Jul. 2024
J. D'Abruzzo Pereira	Software Security Characterization through Static Data Analysis (UC)	Mar. 2024
Nádia Medeiros	Software Metrics and Machine Learning for Software Security (UC)	May 2023
Paulo Nunes	Blended Security Analysis for Web Applications: Techniques And Tools (UC)	May 2022
João Campos	Advanced Online Failure Prediction through Machine Learning (UC)	Jan. 2022
Nuno Silva	An Empirical Approach to Improve the Quality and Dependability of Critical Systems Engineering (UC)	Apr. 2018
Rui Oliveira	Security Benchmarking for Web Service Frameworks (UC)	Mar. 2018
Daniel Vecchiato	Benchmarking User-Defined Security Configurations of Mobile Devices (UNICAMP, Brazil)	Dec. 2016
Isabel Margarido	Framework to Evaluate the Quality of the Implementation of the CMMI Practices (Univ. of Porto, Portugal)	Dec. 2016
Ivano Irrera	Fault Injection for Online Failure Prediction Assessment and Improvement (UC)	Jan. 2016
Carlos Cunha	Self-Healing Techniques for Video-Streaming Applications (UC)	Jan. 2016
Tánia Basso	A Comprehensive Approach to Guide the Design of Privacy-Aware Web Applications (UNICAMP, Brazil)	Nov. 2015
Ricardo Santos	Enhancing Data Security in Data Warehousing (UC)	Dec. 2014
Denise Azevedo	Benchmarking the Resilience of Satellite Simulation Infrastructures based on HLS (INPE, Brazil)	Nov. 2014
Nuno Antunes	Software Vulnerability Detection in Service-Based Infrastructures: Techniques and Tools (UC)	Mar. 2014
Afonso Araújo Neto	Security Benchmarking of Transactional Systems (UC)	Jul. 2013

Nuno Laranjeiro	Advancing Software Services Robustness: Techniques for Assessment and Improvement (UC)	Sep. 2011
José Fonseca	Evaluating the [In]security of Web Applications (UC)	May 2011

Doctoral - Current

Student's Name	**Tentative Title of the Work (University[1])**
Rodrigo Nogueira	Multi-Agent Framework for Reliable Software Generation with LLMs (Charlotte)
Lukas Boschanski	Adversarially-Hardened Static Code Analysis (Charlotte)
Arastoo Zibaeirad	LLMs for Vulnerability Detection and Mitigation (Charlotte)
José Flauzino	Evaluation of the Robustness of Linux Kernel Modules via Netlink (UFPR)
Jessica Maciel	Techniques and Tools for Runtime Security Monitoring and Analysis of Microservices (UC)
Iury Araújo	Intrusion Detection and Tolerance for Microservice Applications
Nuno Seixas	An Integrated Maturity Model for Modern Software Development: Addressing AI, Security and Governance in DevOps
Diego Ribeiro	Methodology for Vulnerability Detection in IoT Gateways Source Code
Eduardo Felix	Security Evaluation of Smart Home Devices based on the OWASP TOP 10 IoT Vulnerabilities
Thaer Alsalibi	Security Benchmarking of IoT systems
Saeed Javani	LLM-based Software Trustworthiness Assessment
Adriana Bernardo	AI-Powered Software Project Management
Davide da Silva	LLM-Driven Moving Target Defense for Microservice Architectures Leveraging Infrastructure as Code (IaC)

C. Academic Programs Leadership

Member	Curriculum development for new BSc and MSc in AI (Charlotte)	2025
Chair	Curriculum development for new MSc on Data Science and Engineering – the program accepted students in 2020 (UC)	2018 – 2019
Chair	Curriculum development for new BS on Data Science and Engineering – the program accepted students in 2020 (UC)	2018 – 2019
Member	Curriculum review of the Doctoral Program on Information Science and Technology (UC)	2018
Member	Curriculum development for new MSc on Cybersecurity – the program accepted students in 2017 (UC)	2016
Chair	Curriculum review of the MSc Informatics Engineering (UC)	2012 – 2013
Program Coordinator	CMU/UC Professional Master of Software Engineering (UC)	2010 – 2013
Program Coordinator	CMU/UC Master of Science in Information Technology – Software Engineering (UC)	2010 – 2012

3. Research

A. Publications

A complete list of publications is provided in the Appendix to this document.

B. Presentations

Tutorial presentations

- N. Antunes, **M. Vieira**: From Software Security Assessment to Security Benchmark. IEEE International Symposium on Software Reliability Engineering, ISSRE 2018, Memphis, TN, USA, Oct. 2018
- N. Antunes, **M. Vieira**: Techniques and Tools to Defend against Web Application's Software Vulnerabilities. IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2015, Rio de Janeiro, RJ, Brazil, Jun. 2015
- **M. Vieira**, N. Antunes: Benchmarking the Dependability of Computer Systems. International Conference on Quantitative Evaluation of SysTems, QEST 2013, Buenos Aires, Argentina, Aug. 2013
- A. Araújo Neto, **M. Vieira**: Assessing DBMS Security. Latin-American Symposium on Dependable Computing, LADC 2011, São José dos Campos, Brazil, Apr. 2011
- J. Estrella, K. Castelo Branco, **M. Vieira**: Security in Web Services: State-of-the-art and Research Opportunities. IEEE SERVICES 2010, Miami, FL, USA, Jul. 2010
- **M. Vieira**: Assessing the Robustness and Security of Web Services: State-of-the-art and Research Opportunities. IEEE SERVICES 2009 - PART II, Bangalore, India, Sep. 2009
- **M. Vieira**: Using the AMBER Data Repository to Analyze, Share and Cross-exploit Dependability Data. International Conference on Dependability, DEPEND 2009, Atenas, Greece, Jun. 2009
- **M. Vieira**: Dependability Benchmarking of Computer Systems. EuroSys'09, Nuremberg, Germany, Apr. 2009
- **M. Vieira**, H. Madeira: Do you know... How to analyze and share results from dependability evaluation experiments? Latin-American Symposium on Dependable Computing, LADC 2007, Morelia, Mexico, Sep. 2007

Keynotes

- Benchmarking GenAI for Software Engineering: Challenges and Insights. The 1st International Workshop on AI for Software Modernization @ 40th IEEE/ACM International Conference on Automated Software Engineering, ASE 2025, Seoul, Republic of Korea, Nov. 2025.
- LLMs for Trustworthy Software Engineering: Insights and Challenges. 24th Latin-American Symposium on Dependable and Secure Computing, LADC 2024, Recife, PE, Brazil, Nov. 2024.
- Field Data to Characterize Source Code and Detect Software Vulnerabilities. DCDS @ IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2022, Baltimore, MD, USA, Jul. 2022.
- Advances on the Detection of Software Vulnerabilities. Latin-American Symposium on Dependable Computing, LADC 2019, Natal, RN, Brazil, Nov. 2019.
- Assessing and Improving the Trustworthiness of Cloud Applications. GAUSS @ IEEE International Symposium on Software Reliability Engineering, ISSRE 2019, Berlin, Germany, Oct. 2019.
- Trustworthiness Benchmarking of (Safety) Critical Systems. International Conference on Computer Safety, Reliability, and Security, SAFECOMP 2019, Turku, Finland, Sep. 2019
- Benchmarking the Security of Software Systems. IEEE International Conference on Software Quality, Reliability, and Security, QRS 2018, Lisbon, Portugal, Jul. 2018
- Benchmarking the Security of Software Systems OR TO BEnchmark or NOT TO Benchmark. International Conference on. Dependable Systems, Services and Technologies, DESSERT 2018, Kyiv, Ukraine, May 2018
- Defending against Web Application Vulnerabilities. ICT 2015, Lisbon, Portugal, Oct. 2015
- Cloud Security and Trustworthiness. *EU-BR 2014 Cooperation Workshop*, Brasilia, Brazil, Jul. 2014
- Improving the Security of Web Applications and Services. *2012 OWASP Recife*, Recife, PE, Brazil, Jan. 2012

- The Big Duck is Moving: Challenges on Building Adaptive Software. *2011 Annual Carnegie Mellon Portugal Program Conference*, Lisbon, Portugal, Oct. 2011
- Detecting Vulnerabilities in Web Applications and Services. SAST 2011, São Paulo, SP, Brazil, Sep. 2011
- Myths About People and Processes in Software Development. *4th ARS Annual Conference*, São Paulo, SP, Brazil, Sep. 2011
- Developing Software for Critical Systems: Challenges and Research Opportunities. CBSEC 2011, São Carlos, SP, Brazil, May 2011
- Testing the Security of Web Applications and Services: State-of-the-art and Research Opportunities. V EBTS, Recife, PE, Brazil, Apr. 2011
- Teaching Quality in the CMU-UC Master of Software Engineering Degree. International Conference on the Quality of Information and Communications Technology, QUATIC 2007, Lisbon, Portugal, Sep. 2007

Panel presentations

- Cloud and Security: Keeping Bad Actors at Bay, Keysight Technical Conference 2021, KTC 2021, *online*, Dec. 2021
- Trust and Trustworthiness. Panel on Security and Privacy in the 5G Systems Era, ENCOM 2020, Natal, Brazil, Dec. 2020
- Safety and security of intelligent vehicles. Panel on Challenges, current solutions and research directions regarding safety and security of intelligent vehicles, SSIV @ IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2017, Denver, CO, USA, Jun. 2017
- Moderator of the Panel on Current Solutions and Research Directions Towards Safety and Security of Intelligent Vehicles, SSIV @ DSN 2016, Toulouse, France, Jun. 2016
- Organizer and moderator of the Panel on What are the limits of software reliability?, IEEE International Symposium on Software Reliability Engineering, ISSRE 2015, Gaithersburg, MD, USA, Nov. 2015
- Organizer and moderator of the Panel on Views on Runtime Resilience Assessment of Dynamic Software Systems, Software Engineering for Resilient Systems, SERENE 2014, Budapest, Hungary, Oct. 2014
- Dependability in self-adaptive systems: How to justify trust in the face of "unknown unknowns"? WDAS @ LADC 2013, Rio de Janeiro, RJ, Brazil, Apr. 2013
- Exception Handling in Contemporary Software Systems: Challenges and Promising Directions. EHCoS @ LADC 2011, São José dos Campos, SP, Brazil, Apr. 2011

Invited Presentations

- Field Data to Characterize Source Code and Detect Software Vulnerabilities. University of Cabo Verde, Cidade da Praia, Cabo Verde, Dec. 2022
- Benchmarking Machine Learning-based Online Failure Prediction Models. College of Computing and Informatics, University of North Carolina at Charlotte (UNC Charlotte), Charlotte, NC, USA, Feb. 2022
- Benchmarking the Security of Software Systems. Federal University of Pernambuco (UFPE), Recife, PE, Brazil, Feb. 2019
- Safety and Security of Autonomous Vehicles: Challenges & Research Directions. Federal Institute to Rio Grande do Norte (IFRN), Natal, RN, Brazil, Apr. 2019
- Fault Injection: Enabling Technique for Failure Prediction (and others). Federal University of Paraiba (UFPB), João Pessoa, PB, Brazil, Nov. 2018
- Failure Prediction: Enabling Technique for Improving Resilience. Federal University of Paraiba (UFPB), João Pessoa, PB, Brazil, Nov. 2018
- Benchmarking the Security of Software Systems. LASIGE Workshop'2018, University of Lisbon, Lisbon, Portugal, Jun. 2018
- Safety and security of intelligent vehicles: Challenges and research directions. C-Days, National Cybersecurity Centre, Coimbra, Portugal, Jun. 2018

- Fault Injection: Enabling Technique for Assessing Computer Systems. Feedzai – Financial Crime Solutions, Coimbra, Portugal, Dec. 2016
- On the Metrics for Benchmarking Vulnerability Detection Tools. City, University London, London, UK, Apr. 2016
- Improving the Security of Web Applications and Services. State University of Campinas (UNICAMP), Campinas, SP, Brazil, May 2014
- Practical Evaluation of Intrusion Detection Tools for SQL Injection. State University of Campinas (UNICAMP), Campinas, SP, Brazil, May 2014
- Detecting Vulnerabilities in Web Services. KU Leuven, Leuven, Belgium, Jun. 2014
- Design, Verification and Validation of large-scale, dynamic service systems. State University of Campinas (UNICAMP), Campinas, SP, Brazil, May 2014
- Robustness in Web Services: State-of-the-art and Research Opportunities. Universitá degli Studi di Napoli Federico II, Naples, Italy, Jun. 2013
- Fault Injection & Robustness Testing: Enabling Techniques for Assessing Computer Systems. Universitá degli Studi di Firenze, Florence, Italy, May 2013
- Failure Prediction: The Future of Dependable Computing. State University of Campinas (UNICAMP), Limeira, SP, Brazil, Aug. 2012
- Failure Prediction: The Future of Dependable Computing. HP Labs Palo Alto, Palo Alto, CA, USA, Sep. 2011
- Failure Prediction: The Future of Dependable Computing. Oracle Corporation, Redwood Shores, CA, USA, Sep. 2011
- Failure Prediction: The Future of Dependable Computing. Dell EMC, San Mateo, CA, USA, Sep. 2011
- Failure Prediction: The Future of Dependable Computing. NOVA University of Lisbon, Almada, Portugal, May 2011
- Detecting and Mitigating Code Vulnerabilities in Web Services. State University of Campinas (UNICAMP), Campinas, SP, Brazil, Nov. 2010
- Effective Detection of SQL/XPath Injection Vulnerabilities in Web Services. State University of Campinas (UNICAMP), Campinas, SP, Brazil, Aug. 2010
- Vulnerability Detection in Web Services: State-of-the-Art", State University of Campinas, Campinas (UNICAMP), SP, Brazil, Aug. 2010
- Quality in Software Development: Challenges and Opportunities. Opening talk of the Master's in Information Technology, State University of Campinas, Campinas, SP, Brazil, Mar. 2009.
- The AMBER Project: Research Roadmap and Data Repository. National Institute for Space Research (INPE), São José dos Campos, SP, Brazil, Mar. 2009
- Improving Your Performance by Adopting PSP & TSP. University of Porto, Porto, Portugal, Apr. 2008
- Affordable Technology for Data Warehousing. Federal University of Campina Grade (UFCG), Campina Grande, PB, Brazil, Mar. 2008
- DBench: Dependability Benchmarking. State University of Campinas, Campinas (UNICAMP), SP, Brazil, Oct. 2006
- Dependability Research@UC. Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil, Oct. 2006

C. Research Grants and Contracts

Research Title	Funding Agency[3]	Dates	Amount[4]	Role[5]
DataGen: Exploring Generative Models for Software Dependability and Security (UNC Charlotte)	FRG UNC Charlotte	Jan'24-Jul'25	$ 8 K	PI
Nexus: Innovation Pact for Digital and Green Transition: Transports, Logistics and Mobility (UC)	PRR + EC	Jan'22-Dec'25	€ 6M	PI (UC)
AIDA: Adaptive, Intelligent and Distributed Assurance Platform (UC)	FCT + P2020	May'20-May'21	€ 314 K	PI (UC)
TalkConnect - Voice Architecture over Distributed Network (UC)	P2020	Jul'19-Jun'22	€ 195 K	PI (UC)
METRICS: Monitoring and Measuring the Trustworthiness of Critical Cloud Systems (UC)	FCT	Jul'18-Jul'22	€ 231 K	Co-PI
ATMOSPHERE: Adaptive, Trustworthy, Manageable, Orchestrated, Secure, Privacy-assuring, Hybrid Ecosystem for REsilient Cloud Computing (UC)	EC (H2020)	Nov'17-Oct'19	€ 197 K	PI (UC)
ALIOT: Internet of Things: Emerging Curriculum for Industry and Human Applications (UC)	EC (Erasmus+)	Dec'16-Nov'19	€ 30 K	PI (UC)
EUBrasilCloudFORUM: Fostering an International dialogue between Europe and Brazil (UC)	EC (H2020)	Jan'16-Jul' 18	€ 192 K	PI
EUBra-BIGSEA: Europe – Brazil Collaboration of BIG Data Scientific Research through Cloud-Centric Applications (UC)	EC (H2020)		€ 214 K	PI (UC)
DEVASSES – DEsign, Verification and VAlidation of large-scale, dynamic Service SystEmS (UC)	EC (FP7)	Jan'14-Dec'17	€ 177 K	PI
V-SIS – Critical Systems Validation (UC)	QREN	Jan'14-Jun'15	€ 105	PI (UC)
CABRIOLET – Model-Oriented Approach and Intelligent Knowledge-Based System for Evolvable Academia-Industry Cooperation in Electronic and Computer Engineering (UC)	EC (TEMPUS IV)	Jan'14-Dec'16	€ 29 K	PI (UC)
FEED - Free Energy Data (UC)	QREN	Apr'13-Mar'15	€ 37 K	PI (UC)
CECRIS – CErtification of CRItical Systems (UC)	EC (FP7)	Jan'13-Dec'16	€ 160 K	PI (UC)
CodeV – Code Analysis Automation (UC)	QREN	Jul'11-Jun'14	€168 K	PI (UC)
CMU-Portugal Program (UC)	FCT	Jan'07-Dec'11	€400 K	PI (UC)

[3] **EC**: European Commission; **FCT**: Portuguese Science Foundation; **H2020**: Horizon 2020 Framework Programme; **FP7**: Seventh Framework Programme; **TEMPUS IV**: Program for higher education; **P2020**: Portuguese Framework Program 2020; **QREN**: Portuguese Framework Program

[4] Most of these projects were develop by a consortium of partners (e.g., European projects are based on large consortiums with both academic and industrial partners). The budget presented refers only to the University of Coimbra

[5] **PI**: Principal Investigator of the entire project; **PI (UC)**: Principal Investigator at University of Coimbra (large projects in Consortium); **Co-PI**: Co-Principal Investigator at University of Coimbra

ADAAS – Assuring Dependability in Architecture-based Adaptive Systems (UC)	FCT	Nov'11-May'15	€ 177 K	Co-PI
Menon@WS – Methodologies for the Development of Non-Vulnerable Web Services (UC)	FCT	Jan'11-Dec'12	€ 10 K	PI

D. Research Awards

- **Distinguished Paper Award** – R. Andrade, N. Laranjeiro, M. Vieira: BugHub: A Large-Scale Issue Report Dataset. European Dependable Computing Conference EDCC 2024
- **Distinguished Paper Award** – J. D'Abruzzo Pereira, J. R. Campos, **M. Vieira**: Machine Learning to Combine Static Analysis Alerts with Software Metrics to Detect Security Vulnerabilities: An Empirical Study. European Dependable Computing Conference, EDCC 2021: 1-8
- **Distinguished Paper Award** – M. Torquato, **M. Vieira**: An Experimental Study of Software Aging and Rejuvenation in Dockerd. European Dependable Computing Conference, EDCC 2019: 1-6
- **Distinguished Paper Award** – J. R. Campos, **M. Vieira**, E. Costa: Exploratory Study of Machine Learning Techniques for Supporting Failure Prediction, EDCC 2018: 9-16
- **ACM SIGSOFT QoSA Distinguished Paper Award Empirical** – J. Cámara, P. Correia, R. de Lemos, **M. Vieira**: Empirical resilience evaluation of an architecture-based self-adaptive software system. ACM SIGSOFT Conference on Quality of Software Architectures, QoSA 2014: 63-72
- **ICWS 2010 Best Paper Award** – N. Antunes, **M. Vieira**: Benchmarking Vulnerability Detection Tools for Web Services. IEEE International Conference on Web Services, ICWS 2010: 203-210
- **William C. Carter Award** – J. Fonseca, **M. Vieira**, H. Madeira: Vulnerability & attack injection for web applications. IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2009: 93-102

4. Service Activities

A. Member at Large

- IFIP WG 10.4 on Dependable Computing and Fault Tolerance, Jul. 2012 – current (**Chair** since Jan. 2022; **Vice Chair** from 2018 to 2021)
- ERCIM SERENE - ERCIM Working Group on Software Engineering for Resilient Systems Working Group, 2013 – current
- Transaction Processing Performance Council (TPC), Oct. 2010 – current
- Standard Performance Evaluation Corporation (SPEC) – Research Group, Mar. 2011 – current (former **Chair** of the Security Benchmarking Working Group)

B. Journal Editorial Boards

- Distinguished Review Board, **ACM Transactions on the Web**, Oct. 2022 – current
- Associate Editor, **Service Oriented Computing and Applications Journal**, March 2022 – current
- Associate Editor, **IEEE Transactions on Dependable and Secure Computing**, March 2018 – current
- Guest Editor, **Journal of Systems and Software**, Vol. 137, Special Issue on Software Reliability Engineering, 2016
- Guest Editor, **IEEE Transactions on Dependable and Secure Computing – Part II**, Vol. 10, Issue 6, 2017, Special Issue on Security and Dependability on Cloud Systems and Services

- Guest Editor, **IEEE Transactions on Dependable and Secure Computing – Part I**, Vol. 10, Issue 5, 2017, Special Issue on Security and Dependability on Cloud Systems and Services

C. Conference Steering Committees

- *Chair*, IEEE International Symposium on Software Reliability Engineering (ISSRE), Jun. 2017 – present (chair since Nov. 2025)
- *Vice Chair*, IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), Jun. 2021 – present (vice-chair since Jan. 2022)
- International Symposium on Reliable Distributed Systems (SRDS), Sep. 2025 – present
- Latin-American Symposium on Dependable Computing Symposium (LADC), Nov. 2023 – present
- Latin-American Symposium on Dependable Computing Symposium (LADC), Nov. 2017 – Jan. 2022

D. General Chair/Co-Chair

- The 56th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2026), Charlotte, NC, USA, 2026
- The 43rd International Symposium on Reliable Distributed Systems (SRDS 2024), Charlotte, NC, US, 2024
- The 53rd IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2023), Porto, Portugal, Jun. 2023
- The 53rd IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2023), Porto, Portugal, Jun. 2023
- 14th ACM/SPEC International Conference on Performance Engineering (SPEC 2023), Coimbra, Portugal, Apr. 2023
- IEEE 31st International Symposium on Software Reliability Engineering (ISSRE 2020), Coimbra, Portugal, Oct. 2020 (online)
- 2015 IEEE International Workshop on Measurements and Networking (M&N 2015), Coimbra, Portugal, Oct. 2015
- 13th European Workshop on Dependable Computing (EWDC 2013), Coimbra, Portugal, May 2013

E. Program Chair/Co-Chair

- Disrupt @ 55th IEEE/IFIP International Conference on Dependable Systems and Networks (Disrupt @ DSN 2025), Naples, Italy, Jun. 2025
- 48th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2018), Luxembourg, Jun. 2018
- 12th European Dependable Computing Conference (EDCC 2016), Gothenburg, Sweden, Sep. 2016
- 7th Latin-American Symposium on Dependable Computing (LADC 2016), Cali, Colombia, Oct. 2016
- Workshop on Cloud Networks (WCN @ CSBC 2016), Porto Alegre, RS, Brazil, Jul. 2016
- Cloudscape Brazil, Porto Alegre, RS, Brazil, Jul. 2016
- IEEE Services 2016 Emerging Technology Track: Dependable and Secure Services (DSS @ SERVICES 2016), San Francisco, CA, USA, Jun. 2016
- The 26th IEEE International Symposium on Software Reliability Engineering (ISSRE 2015), Gaithersburg, MD, USA, Nov. 2015
- 17th IEEE International Conference on High Performance and Communications – Autonomic, Reliability and Fault-tolerance track (IEEE HPCC 2015), New York, NY, USA, Aug. 2015
- IEEE Services 2015 Visionary Track: Dependable and Secure Services (DSS @ SERVICES 2015), New York, NY, USA, June 2015

- 6th International Workshop on Software Engineering for Resilient Systems (SERENE 2014), Budapest, Hungary, Oct. 2014
- IEEE International Workshop on Dependable and Secure Services (DSS @ SERVICES 2014), Anchorage, AK, USA, Jun. 2014
- Special Session on "Dependability and Security Measurements in Computer Systems and Networks", 2nd IEEE International Workshop on Measurements and Networking (M&N 2013), Naples, Italy, Oct. 2013
- 1st International Workshop on Resilience Assessment of Critical Infrastructures (RACI @ LADC 2011), São José dos Campos, SP, Brazil, Apr. 2011
- The 2nd Workshop on Sharing Field Data and Experiment Measurements on Resilience of Distributed Computing Systems (RDCS @ ICDCS 2010), Genova, Italy, Jun. 2010

F. Organizing Committees

- *J1C2 Chair*, 36th IEEE International Symposium on Software Reliability Engineering (ISSRE 2025), São Paulo, SP, Brazil, Oct. 2025
- *Conference Coordinator*, 46th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2016), Toulouse, France, Jun. 2016
- *Workshops Chair*, 45th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2015), Rio de Janeiro, Brazil, Jun. 2015
- *Program Manager*, 25th IEEE International Symposium on Software Reliability Engineering (ISSRE 2014), Naples, Italy, Nov. 2014
- Tutorial Chair, 6th Latin-American Symposium on Dependable Computing (LADC 2013), Rio de Janeiro, Brazil, Apr. 2013
- *Fast Abstracts Chair*, 9th European Dependable Computing Conference (EDCC 2012), Sibiu, Romania, Oct. 2012
- *Student Forum Chair*, 39th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2009), Lisbon, Portugal, Jun. 2009
- *Local Arrangements Chair*, 6th European Dependable Computing Conference (EDCC 2006), Coimbra, Portugal, Oct. 2006

G. Program Committee Member – International Conferences (only)

- 2024 USENIX Annual Technical Conference (ATC), 2024 – 2025
- IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2007 – 2009, 2012 – 2017, 2019, 2021 – 2023, 2025 – 2026
- IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGRID), 2023
- IEEE International Symposium on Software Reliability Engineering (ISSRE), 2011 – 2012, 2016 – 2019, 2021 – 2025
- International Conference on Distributed Computing Systems (ICDCS), 2020
- IEEE International Symposium on Reliable Distributed Systems (SRDS), 2010, 2018 – 2019, 2025
- IEEE International Conference on Software Quality, Reliability, and Security (QRS), 2018 – 2025
- European Dependable Computing Conference (EDCC), 2010, 2012, 2015, 2017 – 2026
- International Conference on Computer Safety, Reliability and Security (SAFECOMP), 2020
- IEEE Pacific Rim International Symposium on Dependable Computing (PRDC), 2012 – 2013
- Latin-American Symposium on Dependable Computing (LADC), 2009 – 2013, 2018 – 2025
- IEEE International Symposium on High Assurance Systems Engineering (HASE), 2014 – 2017
- 19th International Conference Service-Oriented Computing (ICSOC), 2021

- ACM/SIGAPP ACM Symposium on Applied Computing – Operating Systems Track (ACM SAC), 2015 – a 2017, 2020 – 2023
- Symposium on Modelling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS), 2020 – 2025
- International Conference on Scientific and Statistical Database Management (SSBDM), 2020, 2022 – 2023
- IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems Technology and Applications (IDAACS), 2021
- International Conference on Database and Expert Systems Applications (DEXA), 2009 – 2017, 2019 – 2020
- TPC Technology Conference on Performance Evaluation & Benchmarking (TPCTC), 2010 – 2016
- ACM/SPEC International Conference on Performance Engineering (ICPE), 2015 – 2016, 2024 – 2026
- IEEE International Conference on Cloud Computing Technology and Science (CloudCom), 2010, 2014, 2015, 2016
- International Conference on Electronic Commerce and Web Technologies (EC-Web), 2015
- International Conference on Computer, Information, and Telecommunication Systems (CITS), 2012 – 2015
- International Congress on Big Data (IEEE BigData Congress), 2015
- IEEE International Conference on Advanced Information Networking and Applications (AINA), 2014 – 2015
- International Conference on Information Integration and Web-based Applications & Services (iiWAS), 2011 – 2013
- International Conference on Mobile, Ubiquitous, and Intelligent Computing (MUSIC), 2013
- International Conference on Quantitative Evaluation of SysTems (QEST), 2013
- International Symposium on Wireless sensor network Technologies and Applications for Smart Space (WTA), 2012
- International Database Engineering & Applications Symposium (IDEAS), 2012
- FTRA International Conference on Advanced IT, engineering and Management (FTRA AIM), 2011 – 2012
- International Conference on Networks and Cyber Security (ICNCS), 2012
- IEEE/ACM International Conference on Internet of Things (IEEE/ACM iThings), 2011
- International Database Engineering & Applications Symposium (IDEAS), 2011
- Asian Test Symposium (ATS), 2010

H. Award Panels

- Test of Time Award, IEEE International Symposium on Software Reliability Engineering, ISSRE 2022
- Talkdesk Merit Awards, 2022
- The Jean-Claude Laprie Award, IFIP WG 10.4 on Dependable Computing and Fault Tolerance, 2021
- SPEC Kaivalya Dixit Distinguished Dissertation Award, SPEC Research, 2012, 2013, 2017, 2023
- Bank *Espirito-Santo* – Innovation Award, Portugal, 2011, 2012, 2013

I. Reviewing

Reviewer – Funding Agencies

- Portuguese Innovation Agency (ANI)
- Swedish Research Council

- The Israel Academy of Sciences and Humanities
- **European Research Council**, Marie Skłodowska-Curie Actions – Doctoral Networks
- National Center of Science and Technology Evaluation, Republic of Kazakhstan
- CHIST-ERA ERA-NET, European Coordinated Research on Long-term Challenges in Information and Communication Sciences & Technologies ERA-Net
- Icelandic Research Fund, Iceland

Reviewer – Journals (incomplete list)

ACM Computing Surveys (ACM-CSUR), ACM Transactions on Autonomous and Adaptive Systems (TAAS), ACM Transactions on Privacy and Security (TOPS), ACM Transactions on Software Engineering and Methodology (TOSEM), ACM Transactions on the Web (TWEB), Engineering Applications of Artificial Intelligence (EAAI), IEEE Computer, IEEE Journal of Biomedical and Health Informatics (J-BHI), IEEE Security and Privacy Magazine, IEEE Software, IEEE Transactions on Cloud Computing (TCC), IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Intelligent Transportation Systems (ITS), IEEE Transactions on Knowledge and Data Engineering (TKDE), IEEE Transactions on Parallel and Distributed Systems (TPDS), IEEE Transactions on Reliability (TR), IEEE Transactions on Services Computing (TSC), IEEE Transactions on Software Engineering (TSE), IET Software, International Journal of Computer Systems Science and Engineering (CSSE), International Journal of Critical Computer Based Systems (IJCCBS), International Journal of Information Security (IJIS), International Journal of Information Security Science (IJISS), Journal of Internet Services and Applications (JISA), Journal of Network and Computer Applications (JNCA), Journal of Software: Evolution and Process (SEP), Journal of Systems and Software (JSS), Journal of the International Measurement Confederation (Measurement), Journal of Universal Computer Science (JUCS), Network Protocols and Algorithms (NPA), Medical & Biological Engineering & Computing (MBEC), Performance Evaluation (PEVA), Sensors, Software and Systems Modeling (SOSYM), Telecommunication Systems (TELS), The Computer Journal (COMPJ), Transactions on Large-Scale Data- and Knowledge-Centered Systems (TLDKS)

J. Consulting and Advisory Activities

- *Software Testing*, Altice Labs – Innovation, 2021 – 2023
- EU-Brazil 2016 Working Group (Chair), European Commission, 2014 – 2105
- *Data Mining*, Portugal Telecom – Innovation, 2009
- *Business Intelligence*, European Space Agency, 2007 – 2010
- *Software Project Estimation*, Critical Software SA, 2008 – 2010
- *Risk Management*, Critical Software SA, 2008
- *Software Reuse*, Critical Software SA, 2007 – 2009
- *Data Warehousing and Business Intelligence,* Portugal Telecom – Innovation, 2006 – 2009

Appendix: List of Publications

List of publications: Marco Vieira

Journal Articles

[1] R. Andrade, N. Laranjeiro, and M. Vieira, "An Empirical Study on the Classification of Bug Reports with Machine Learning," *IEEE Open Journal of the Computer Society*, 2026.

[2] D. R. Gomes, E. F. Felix, F. Aires, and M. Vieira, "Static code analysis for iot security: A systematic literature review," *ACM Computing Surveys*, vol. 58, no. 3, 65:1–65:47, 2026. DOI: 10.1145/3745019. [Online]. Available: https://doi.org/10.1145/3745019.

[3] R. Krasniqi, D. Xu, and M. Vieira, "SE perspective on llms: Biases in code generation, code interpretability, and code security risks," *ACM Computing Surveys*, vol. 58, no. 5, 137:1–137:16, 2026. DOI: 10.1145/3774324. [Online]. Available: https://doi.org/10.1145/3774324.

[4] R. P. Nogueira, M. Vieira, and J. R. Campos, "PROBE: Benchmarking Code Generation in Large Language Models," *Empirical Software Engineering*, 2026.

[5] M. Santos, R. Matos, M. Vieira, and J. Araujo, "Software aging issues and rejuvenation strategies for a container orchestration system," *Future Generation Computer Systems*, vol. 179, p. 108 274, 2026. DOI: 10.1016/J.FUTURE.2025.108274. [Online]. Available: https://doi.org/10.1016/j.future.2025.108274.

[6] N. A. Seixas, P. Rupino da Cunha, M. Vieira, J. Barata, and V. Ribeiro, " Rethinking Maturity in Next-Generation Maturity Models," *Computer*, vol. 59, no. 04, pp. 60–80, 2026, ISSN: 1558-0814. DOI: 10.1109/MC.2025.3635020. [Online]. Available: https://doi.ieeecomputersociety.org/10.1109/MC.2025.3635020.

[7] T. Slaibi, N. Ivaki, and M. Vieira, "Iot security assessment: A systematic literature review," *Journal of Systems and Software*, p. 112 833, 2026, ISSN: 0164-1212. DOI: https://doi.org/10.1016/j.jss.2026.112833. [Online]. Available: https://www.sciencedirect.com/science/article/pii/S0164121226000671.

[8] I. Araújo and M. Vieira, "Enhancing intrusion detection in containerized services: Assessing machine learning models and an advanced representation for system call data," *Computers & Security*, vol. 154, p. 104 438, 2025. DOI: 10.1016/J.COSE.2025.104438. [Online]. Available: https://doi.org/10.1016/j.cose.2025.104438.

[9] J. R. Campos, E. Costa, and M. Vieira, "Predicting failures in complex systems," *IEEE Computer*, vol. 58, no. 5, pp. 57–64, 2025. DOI: 10.1109/MC.2025.3526342. [Online]. Available: https://doi.org/10.1109/MC.2025.3526342.

[10] J. Castro, N. Laranjeiro, K. Goseva-Popstojanova, and M. Vieira, "Developing attack detection models for microservice applications: A comprehensive framework and its illustration and validation on dos attacks," *IEEE Transactions on Dependable and Secure Computing*, vol. 22, no. 6, pp. 6748–6766, 2025. DOI: 10.1109/TDSC.2025.3590197. [Online]. Available: https://doi.org/10.1109/TDSC.2025.3590197.

[11] P. Melo, J. Ferreira, J. Araujo, and M. Vieira, "Benchmarking software aging effects in container platforms," *IEEE Transactions on Reliability*, vol. 74, no. 4, pp. 5015–5029, 2025. DOI: 10.1109/TR.2025.3612809. [Online]. Available: https://doi.org/10.1109/TR.2025.3612809.

[12] P. J. C. Nunes, J. Fonseca, and M. Vieira, "Blending static and dynamic analysis for web application vulnerability detection: Methodology and case study," *IEEE Access*, vol. 13, pp. 3139–3153, 2025. DOI: 10.1109/ACCESS.2024.3522094. [Online]. Available: https://doi.org/10.1109/ACCESS.2024.3522094.

[13] H. Silva, M. Vieira, and A. Neto, "A survey on survivable safety-critical systems," *IEEE Access*, vol. 13, pp. 127 770–127 787, 2025. DOI: 10.1109/ACCESS.2025.3590244. [Online]. Available: https://doi.org/10.1109/ACCESS.2025.3590244.

[14] M. Torquato, P. R. M. Maciel, and M. Vieira, "Evaluation of time-based virtual machine migration as moving target defense against host-based attacks," *Journal of Systems and Software*, vol. 219, p. 112 222, 2025. DOI: 10.1016/J.JSS.2024.112222. [Online]. Available: https://doi.org/10.1016/j.jss.2024.112222.

[15] M. Vieira, "Leveraging llms for trustworthy software engineering: Insights and challenges," *IEEE Computer*, vol. 58, no. 7, pp. 79–90, 2025. DOI: 10.1109/MC.2025.3546204. [Online]. Available: https://doi.org/10.1109/MC.2025.3546204.

[16] M. Vieira, "Why we should trust systems, not just their AI/ML components," *IEEE Computer*, vol. 58, no. 11, pp. 84–94, 2025. DOI: 10.1109/MC.2025.3604335. [Online]. Available: https://doi.org/10.1109/MC.2025.3604335.

[17] J. R. Campos, E. Costa, and M. Vieira, "Online failure prediction for complex systems: Methodology and case studies," *IEEE Trans. Dependable Secur. Comput.*, vol. 20, no. 4, pp. 3520–3534, 2023. DOI: 10.1109/TDSC.2022.3192671. [Online]. Available: https://doi.org/10.1109/TDSC.2022.3192671.

[18] D. R. Gomes, F. A. A. Lins, O. O. Nóbrega, E. F. Felix, B. A. Jesus, and M. Vieira, "Security evaluation of authentication requirements in iot gateways," *J. Netw. Syst. Manag.*, vol. 31, no. 4, p. 67, 2023. DOI: 10.1007/S10922-023-09754-Z. [Online]. Available: https://doi.org/10.1007/s10922-023-09754-z.

[19] C. F. Gonçalves, D. S. Menasché, A. Avritzer, N. Antunes, and M. Vieira, "Detecting anomalies through sequential performance analysis in virtualized environments," *IEEE Access*, vol. 11, pp. 70 716–70 740, 2023. DOI: 10.1109/ACCESS.2023.3293643. [Online]. Available: https://doi.org/10.1109/ACCESS.2023.3293643.

[20] N. P. D. S. Medeiros, N. Ivaki, P. Costa, and M. Vieira, "Trustworthiness models to categorize and prioritize code for security improvement," *J. Syst. Softw.*, vol. 198, p. 111 621, 2023. DOI: 10.1016/J.JSS.2023.111621. [Online]. Available: https://doi.org/10.1016/j.jss.2023.111621.

[21] M. Martínez, J. C. Ruiz, N. Antunes, D. de Andrés, and M. Vieira, "A multi-criteria analysis of benchmark results with expert support for security tools," *IEEE Trans. Dependable Secur. Comput.*, vol. 19, no. 4, pp. 2151–2164, 2022. DOI: 10.1109/TDSC.2020.3048202. [Online]. Available: https://doi.org/10.1109/TDSC.2020.3048202.

[22] M. Torquato, P. R. M. Maciel, and M. Vieira, "Model-based performability and dependability evaluation of a system with VM migration as rejuvenation in the presence of bursty workloads," *J. Netw. Syst. Manag.*, vol. 30, no. 1, p. 3, 2022. DOI: 10.1007/S10922-021-09619-3. [Online]. Available: https://doi.org/10.1007/s10922-021-09619-3.

[23] D. Weyns et al., "Guidelines for artifacts to support industry-relevant research on self-adaptation," *ACM SIGSOFT Softw. Eng. Notes*, vol. 47, no. 4, pp. 18–24, 2022. DOI: 10.1145/3561846.3561852. [Online]. Available: https://doi.org/10.1145/3561846.3561852.

[24] F. A. A. Lins and M. Vieira, "Security requirements and solutions for iot gateways: A comprehensive study," *IEEE Internet Things J.*, vol. 8, no. 11, pp. 8667–8679, 2021. DOI: 10.1109/JIOT.2020.3041049. [Online]. Available: https://doi.org/10.1109/JIOT.2020.3041049.

[25] J. D. Pereira, N. R. Ivaki, and M. Vieira, "Characterizing buffer overflow vulnerabilities in large C/C++ projects," *IEEE Access*, vol. 9, pp. 142 879–142 892, 2021. DOI: 10.1109/ACCESS.2021.3120349. [Online]. Available: https://doi.org/10.1109/ACCESS.2021.3120349.

[26] L. Santos, B. Cunha, I. Fé, M. Vieira, and F. A. P. da Silva, "Data processing on edge and cloud: A performability evaluation and sensitivity analysis," *J. Netw. Syst. Manag.*, vol. 29, no. 3, p. 27, 2021. DOI: 10.1007/S10922-021-09592-X. [Online]. Available: https://doi.org/10.1007/s10922-021-09592-x.

[27] N. P. D. S. Medeiros, N. R. Ivaki, P. Costa, and M. Vieira, "Vulnerable code detection using software metrics and machine learning," *IEEE Access*, vol. 8, pp. 219 174–219 198, 2020. DOI: 10.1109/ACCESS.2020.3041181. [Online]. Available: https://doi.org/10.1109/ACCESS.2020.3041181.

[28] R. A. Oliveira, M. M. Raga, N. Laranjeiro, and M. Vieira, "An approach for benchmarking the security of web service frameworks," *Future Gener. Comput. Syst.*, vol. 110, pp. 833–848, 2020. DOI: 10.1016/J.FUTURE.2019.10.027. [Online]. Available: https://doi.org/10.1016/j.future.2019.10.027.

[29] M. Torquato, P. R. M. Maciel, and M. Vieira, "Availability and reliability modeling of VM migration as rejuvenation on a system under varying workload," *Softw. Qual. J.*, vol. 28, no. 1, pp. 59–83, 2020. DOI: 10.1007/S11219-019-09474-1. [Online]. Available: https://doi.org/10.1007/s11219-019-09474-1.

[30] M. Torquato and M. Vieira, "Moving target defense in cloud computing: A systematic mapping study," *Comput. Secur.*, vol. 92, p. 101 742, 2020. DOI: 10.1016/J.COSE.2020.101742. [Online]. Available: https://doi.org/10.1016/j.cose.2020.101742.

[31] A. S. Alic et al., "BIGSEA: A big data analytics platform for public transportation information," *Future Gener. Comput. Syst.*, vol. 96, pp. 243–269, 2019. DOI: 10.1016/J.FUTURE.2019.02.011. [Online]. Available: https://doi.org/10.1016/j.future.2019.02.011.

[32] A. M. Braga, R. Dahab, N. Antunes, N. Laranjeiro, and M. Vieira, "Understanding how to use static analysis tools for detecting cryptography misuse in software," *IEEE Trans. Reliab.*, vol. 68, no. 4, pp. 1384–1403, 2019. DOI: 10.1109/TR.2019.2937214. [Online]. Available: https://doi.org/10.1109/TR.2019.2937214.

[33] J. R. Campos, E. Costa, and M. Vieira, "Improving failure prediction by ensembling the decisions of machine learning models: A case study," *IEEE Access*, vol. 7, pp. 177 661–177 674, 2019. DOI: 10.1109/ACCESS.2019.2958480. [Online]. Available: https://doi.org/10.1109/ACCESS.2019.2958480.

[34] S. Fiore et al., "An integrated big and fast data analytics platform for smart urban transportation management," *IEEE Access*, vol. 7, pp. 117 652–117 677, 2019. DOI: 10.1109/ACCESS.2019.2936941. [Online]. Available: https://doi.org/10.1109/ACCESS.2019.2936941.

[35] P. J. C. Nunes, I. Medeiros, J. Fonseca, N. Neves, M. Correia, and M. Vieira, "An empirical study on combining diverse static analysis tools for web security vulnerabilities based on development scenarios," *Computing*, vol. 101, no. 2, pp. 161–185, 2019. DOI: 10.1007/S00607-018-0664-Z. [Online]. Available: https://doi.org/10.1007/s00607-018-0664-z.

[36] M. Torquato, P. R. M. Maciel, and M. Vieira, "A model for availability and security risk evaluation for systems with VMM rejuvenation enabled by VM migration scheduling," *IEEE Access*, vol. 7, pp. 138 315–138 326, 2019. DOI: 10.1109/ACCESS.2019.2943273. [Online]. Available: https://doi.org/10.1109/ACCESS.2019.2943273.

[37] J. Mendes, N. Laranjeiro, and M. Vieira, "Toward characterizing HTML defects on the web," *Softw. Pract. Exp.*, vol. 48, no. 3, pp. 750–757, 2018. DOI: 10.1002/SPE.2545. [Online]. Available: https://doi.org/10.1002/spe.2545.

[38] P. J. C. Nunes, I. Medeiros, J. Fonseca, N. Neves, M. Correia, and M. Vieira, "Benchmarking static analysis tools for web security," *IEEE Trans. Reliab.*, vol. 67, no. 3, pp. 1159–1175, 2018. DOI: 10.1109/TR.2018.2839339. [Online]. Available: https://doi.org/10.1109/TR.2018.2839339.

[39] P. Silva et al., "A europe-brazil context for secure data analytics in the cloud," *IEEE Secur. Priv.*, vol. 16, no. 6, pp. 52–60, 2018. DOI: 10.1109/MSEC.2018.2875326. [Online]. Available: https://doi.org/10.1109/MSEC.2018.2875326.

[40] K. Velasquez et al., "Fog orchestration for the internet of everything: State-of-the-art and research challenges," *J. Internet Serv. Appl.*, vol. 9, no. 1, 14:1–14:23, 2018. DOI: 10.1186/S13174-018-0086-3. [Online]. Available: https://doi.org/10.1186/s13174-018-0086-3.

[41] M. Vieira and K. Wolter, "Introduction to the special issue on software reliability engineering," *J. Syst. Softw.*, vol. 137, pp. 396–398, 2018. DOI: 10.1016/J.JSS.2017.12.027. [Online]. Available: https://doi.org/10.1016/j.jss.2017.12.027.

[42] N. Antunes and M. Vieira, "Designing vulnerability testing tools for web services: Approach, components, and tools," *Int. J. Inf. Sec.*, vol. 16, no. 4, pp. 435–457, 2017. DOI: 10.1007/S10207-016-0334-0. [Online]. Available: https://doi.org/10.1007/s10207-016-0334-0.

[43] J. Cámara, R. de Lemos, N. Laranjeiro, R. Ventura, and M. Vieira, "Robustness-driven resilience evaluation of self-adaptive software systems," *IEEE Trans. Dependable Secur. Comput.*, vol. 14, no. 1, pp. 50–64, 2017. DOI: 10.1109/TDSC.2015.2429128. [Online]. Available: https://doi.org/10.1109/TDSC.2015.2429128.

[44] D. Rodrigues et al., "Service-oriented architectures for a flexible and safe use of unmanned aerial vehicles," *IEEE Intell. Transp. Syst. Mag.*, vol. 9, no. 1, pp. 97–109, 2017. DOI: 10.1109/MITS.2016.2611038. [Online]. Available: https://doi.org/10.1109/MITS.2016.2611038.

[45] S. Russo and M. Vieira, "Editorial: Security and dependability of cloud systems and services," *IEEE Trans. Serv. Comput.*, vol. 10, no. 5, pp. 673–674, 2017. DOI: 10.1109/TSC.2017.2735778. [Online]. Available: https://doi.org/10.1109/TSC.2017.2735778.

[46] S. Russo and M. Vieira, "Editorial: Security and dependability of cloud systems and services - part II," *IEEE Trans. Serv. Comput.*, vol. 10, no. 6, pp. 927–928, 2017. DOI: 10.1109/TSC.2017.2735818. [Online]. Available: https://doi.org/10.1109/TSC.2017.2735818.

[47] N. Silva, J. C. Cunha, and M. Vieira, "A field study on root cause analysis of defects in space software," *Reliab. Eng. Syst. Saf.*, vol. 158, pp. 213–229, 2017. DOI: 10.1016/J.RESS.2016.08.016. [Online]. Available: https://doi.org/10.1016/j.ress.2016.08.016.

[48] D. Vecchiato, M. Vieira, and E. Martins, "The perils of android security configuration," *Computer*, vol. 49, no. 6, pp. 15–21, 2016. DOI: 10.1109/MC.2016.184. [Online]. Available: https://doi.org/10.1109/MC.2016.184.

[49] N. Antunes and M. Vieira, "Assessing and comparing vulnerability detection tools for web services: Benchmarking approach and examples," *IEEE Trans. Serv. Comput.*, vol. 8, no. 2, pp. 269–283, 2015. DOI: 10.1109/TSC.2014.2310221. [Online]. Available: https://doi.org/10.1109/TSC.2014.2310221.

[50] I. A. Elia, N. Laranjeiro, and M. Vieira, "A practical approach towards automatic testing of web services interoperability," *Int. J. Web Serv. Res.*, vol. 12, no. 3, pp. 78–103, 2015. DOI: 10.4018/IJWSR.2015070104. [Online]. Available: https://doi.org/10.4018/IJWSR.2015070104.

[51] J. R. Lourenço, B. Cabral, P. Carreiro, M. Vieira, and J. Bernardino, "Choosing the right nosql database for the job: A quality attribute evaluation," *J. Big Data*, vol. 2, p. 18, 2015. DOI: 10.1186/S40537-015-0025-0. [Online]. Available: https://doi.org/10.1186/s40537-015-0025-0.

[52] A. Milenkoski, M. Vieira, S. Kounev, A. Avritzer, and B. D. Payne, "Evaluating computer intrusion detection systems: A survey of common practices," *ACM Comput. Surv.*, vol. 48, no. 1, 12:1–12:41, 2015. DOI: 10.1145/2808691. [Online]. Available: https://doi.org/10.1145/2808691.

[53] R. A. Oliveira, N. Laranjeiro, and M. Vieira, "Assessing the security of web service frameworks against denial of service attacks," *J. Syst. Softw.*, vol. 109, pp. 18–31, 2015. DOI: 10.1016/J.JSS.2015.07.006. [Online]. Available: https://doi.org/10.1016/j.jss.2015.07.006.

[54] P. C. Véras, E. Villani, A. M. Ambrosio, M. Vieira, and H. Madeira, "A benchmarking process to assess software requirements documentation for space applications," *J. Syst. Softw.*, vol. 100, pp. 103–116, 2015. DOI: 10.1016/J.JSS.2014.10.054. [Online]. Available: https://doi.org/10.1016/j.jss.2014.10.054.

[55] N. Antunes and M. Vieira, "Penetration testing for web services," *Computer*, vol. 47, no. 2, pp. 30–36, 2014. DOI: 10.1109/MC.2013.409. [Online]. Available: https://doi.org/10.1109/MC.2013.409.

[56] J. Cámara, R. de Lemos, N. Laranjeiro, R. Ventura, and M. Vieira, "Testing the robustness of controllers for self-adaptive systems," *J. Braz. Comput. Soc.*, vol. 20, no. 1, 1:1–1:14, 2014. DOI: 10.1186/1678-4804-20-1. [Online]. Available: https://doi.org/10.1186/1678-4804-20-1.

[57] J. Fonseca, N. Seixas, M. Vieira, and H. Madeira, "Analysis of field data on web security vulnerabilities," *IEEE Trans. Dependable Secur. Comput.*, vol. 11, no. 2, pp. 89–100, 2014. DOI: 10.1109/TDSC.2013.37. [Online]. Available: https://doi.org/10.1109/TDSC.2013.37.

[58] J. Fonseca, M. Vieira, and H. Madeira, "Evaluation of web security mechanisms using vulnerability & attack injection," *IEEE Trans. Dependable Secur. Comput.*, vol. 11, no. 5, pp. 440–453, 2014. DOI: 10.1109/TDSC.2013.45. [Online]. Available: https://doi.org/10.1109/TDSC.2013.45.

[59] N. Laranjeiro, M. Vieira, and H. Madeira, "A technique for deploying robust web services," *IEEE Trans. Serv. Comput.*, vol. 7, no. 1, pp. 68–81, 2014. DOI: 10.1109/TSC.2012.39. [Online]. Available: https://doi.org/10.1109/TSC.2012.39.

[60] R. J. Santos, J. Bernardino, and M. Vieira, "Approaches and challenges in database intrusion detection," *SIGMOD Rec.*, vol. 43, no. 3, pp. 36–47, 2014. DOI: 10.1145/2694428.2694435. [Online]. Available: https://doi.org/10.1145/2694428.2694435.

[61] J. Cámara, R. de Lemos, M. Vieira, R. Almeida, and R. Ventura, "Architecture-based resilience evaluation for self-adaptive systems," *Computing*, vol. 95, no. 8, pp. 689–722, 2013. DOI: 10.1007/S00607-013-0311-7. [Online]. Available: https://doi.org/10.1007/s00607-013-0311-7.

[62] N. Antunes and M. Vieira, "Defending against web application vulnerabilities," *Computer*, vol. 45, no. 2, pp. 66–72, 2012. DOI: 10.1109/MC.2011.259. [Online]. Available: https://doi.org/10.1109/MC.2011.259.

[63] N. Laranjeiro, M. Vieira, and H. Madeira, "A robustness testing approach for SOAP web services," *J. Internet Serv. Appl.*, vol. 3, no. 2, pp. 215–232, 2012. DOI: 10.1007/S13174-012-0062-2. [Online]. Available: https://doi.org/10.1007/s13174-012-0062-2.

[64] A. A. Neto and M. Vieira, "Security gaps in databases: A comparison of alternative software products for web applications support," *Int. J. Secur. Softw. Eng.*, vol. 2, no. 3, pp. 42–62, 2011. DOI: 10.4018/JSSE.2011070103. [Online]. Available: https://doi.org/10.4018/jsse.2011070103.

[65] A. A. Neto and M. Vieira, "Selecting secure web applications using trustworthiness benchmarking," *Int. J. Dependable Trust. Inf. Syst.*, vol. 2, no. 2, pp. 1–16, 2011. DOI: 10.4018/JDTIS.2011040101. [Online]. Available: https://doi.org/10.4018/jdtis.2011040101.

[66] A. A. Neto and M. Vieira, "Benchmarking untrustworthiness: An alternative to security measurement," *Int. J. Dependable Trust. Inf. Syst.*, vol. 1, no. 2, pp. 32–54, 2010. DOI: 10.4018/JDTIS.2010040102. [Online]. Available: https://doi.org/10.4018/jdtis.2010040102.

[67] N. Laranjeiro and M. Vieira, "Deploying fault tolerant web service compositions," *Comput. Syst. Sci. Eng.*, vol. 23, no. 5, 2008.

[68] M. Vieira and H. Madeira, "Joint evaluation of recovery and performance of a COTS DBMS in the presence of operator faults," *Perform. Evaluation*, vol. 56, no. 1-4, pp. 187–212, 2004. DOI: 10.1016/J.PEVA.2003.07.006. [Online]. Available: https://doi.org/10.1016/j.peva.2003.07.006.

Conference Papers

[1] M. Vieira, B. Shah, P. A. Shah, and V. Khadloya, "Testforge: A benchmarking framework for llm-based test case generation," in *33rd IEEE International Conference on Software Analysis, Evolution and Reengineering, SANER 2026, Limassol, Cyprus, March 17 - 20, 2026*, IEEE, 2026.

[2] J. W. V. Flauzino, M. Vieira, and E. P. Duarte, "Robustness assessment of the open vswitch kernel module," in *36th IEEE International Symposium on Software Reliability Engineering, ISSRE 2025, São Paulo, Brazil, October 21-24, 2025*, IEEE, 2025, pp. 215–226. DOI: 10.1109/ISSRE66568.2025.00032. [Online]. Available: https://doi.org/10.1109/ISSRE66568.2025.00032.

[3] S. J. Jananloo, J. D. Pereira, and M. Vieira, "An empirical study of large language models as experts in software trustworthiness assessment," in *15th Latin-American Symposium on Dependable and Secure Computing (LADC 2025)*, L. A. Rodrigues and R. Oliveira, Eds., Cham: Springer Nature Switzerland, 2025, pp. 75–93, ISBN: 978-3-032-11539-3. DOI: 10.1007/978-3-032-11539-3_5.

[4] R. P. Nogueira, M. Vieira, and J. R. Campos, "Beyond functional correctness: An empirical evaluation of large language models for text-to-code generation," in *36th IEEE International Symposium on Software Reliability Engineering, ISSRE 2025, São Paulo, Brazil, October 21-24, 2025*, IEEE, 2025, pp. 264–275. DOI: 10.1109/ISSRE66568.2025.00036. [Online]. Available: https://doi.org/10.1109/ISSRE66568.2025.00036.

[5] M. Vieira, P. A. Shah, B. Shah, and R. Krasniqi, "Polyglot: An extensible framework to benchmark code translation with llms," in *40th IEEE/ACM International Conference on Automated Software Engineering, ASE 2025, Seoul, Korea, Republic of, November 16-20, 2025*, IEEE, 2025, pp. 2363–2375. DOI: 10.1109/ASE63991.2025.00195. [Online]. Available: https://doi.org/10.1109/ASE63991.2025.00195.

[6] R. Andrade, N. Laranjeiro, and M. Vieira, "Bughub: A large scale issue report dataset," in *19th European Dependable Computing Conference, EDCC 2024, Leuven, Belgium, April 8-11, 2024*, IEEE, 2024, pp. 9–16. DOI: 10.1109/EDCC61798.2024.00016. [Online]. Available: https://doi.org/10.1109/EDCC61798.2024.00016.

[7] G. Callou and M. Vieira, "Availability and performance analysis of cloud services," in *Proceedings of the 13th Latin-American Symposium on Dependable and Secure Computing, LADC 2024, Recife, Brazil, November 26-29, 2024*, ACM, 2024, pp. 262–271. DOI: 10.1145/3697090.3697105. [Online]. Available: https://doi.org/10.1145/3697090.3697105.

[8] J. R. Henriques, J. D. Pereira, and M. Vieira, "Mining vulnerability and code repositories to study software security," in *Proceedings of the 13th Latin-American Symposium on Dependable and Secure Computing, LADC 2024, Recife, Brazil, November 26-29, 2024*, ACM, 2024, pp. 11–16. DOI: 10.1145/3697090.3697103. [Online]. Available: https://doi.org/10.1145/3697090.3697103.

[9] A. Almeida, T. Batista, E. Cavalcante, F. C. Delicato, R. C. Motta, and M. Vieira, "Middleware for digital twins: A systematic mapping study," in *Proceedings of the 1st International Workshop on Middleware for Digital Twin, Midd4DT 2023, Bologna, Italy, December 11-15, 2023*, ACM, 2023, pp. 19–24. DOI: 10.1145/3631319.3632302. [Online]. Available: https://doi.org/10.1145/3631319.3632302.

[10] I. Araújo, N. Antunes, and M. Vieira, "Evaluation of machine learning for intrusion detection in microservice applications," in *12th Latin-American Symposium on Dependable and Secure Computing, LADC 2023, La Paz, Bolivia, October 16-18, 2023*, ACM, 2023, pp. 126–135. DOI: 10.1145/3615366.3615375. [Online]. Available: https://doi.org/10.1145/3615366.3615375.

[11] I. Araújo, N. Antunes, and M. Vieira, "Intrusion detection and tolerance for microservice applications," in *12th Latin-American Symposium on Dependable and Secure Computing, LADC 2023, La Paz, Bolivia, October 16-18, 2023*, ACM, 2023, pp. 176–181. DOI: 10.1145/3615366.3622794. [Online]. Available: https://doi.org/10.1145/3615366.3622794.

[12] J. R. Campos, E. Costa, and M. Vieira, "Online failure prediction through fault injection and machine learning: Methodology and case study," in *34th IEEE International Symposium on Software Reliability Engineering, ISSRE 2023, Florence, Italy, October 9-12, 2023*, IEEE, 2023, pp. 451–461. DOI: 10.1109/ISSRE59848.2023.00021. [Online]. Available: https://doi.org/10.1109/ISSRE59848.2023.00021.

[13] J. R. Campos, R. Machado, and M. Vieira, "Leveraging time series autocorrelation through numerical differentiation for improving failure prediction," in *12th Latin-American Symposium on Dependable and Secure Computing, LADC 2023, La Paz, Bolivia, October 16-18, 2023*, ACM,

2023, pp. 70–79. DOI: 10.1145/3615366.3615423. [Online]. Available: https://doi.org/10.1145/3615366.3615423.

[14] J. Castro, N. Laranjeiro, and M. Vieira, "Exploring logic scoring of preference for dos attack detection in microservice applications," in *IEEE International Conference on Web Services, ICWS 2023, Chicago, IL, USA, July 2-8, 2023*, C. A. Ardagna et al., Eds., IEEE, 2023, pp. 573–584. DOI: 10.1109/ICWS60048.2023.00076. [Online]. Available: https://doi.org/10.1109/ICWS60048.2023.00076.

[15] J. Castro, N. Laranjeiro, and M. Vieira, "Generating realistic attack data for microservices: Framework and case study," in *12th Latin-American Symposium on Dependable and Secure Computing, LADC 2023, La Paz, Bolivia, October 16-18, 2023*, ACM, 2023, pp. 60–69. DOI: 10.1145/3615366.3615377. [Online]. Available: https://doi.org/10.1145/3615366.3615377.

[16] J. Castro, N. Laranjeiro, and M. Vieira, "Techniques and tools for runtime security monitoring and analysis of microservices," in *53rd Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2023 - Supplemental Volume, Porto, Portugal, June 27-30, 2023*, IEEE, 2023, pp. 191–193. DOI: 10.1109/DSN-S58398.2023.00052. [Online]. Available: https://doi.org/10.1109/DSN-S58398.2023.00052.

[17] E. F. Felix, F. A. A. Lins, D. R. Gomes, O. O. Nóbrega, B. A. Jesus, and M. Vieira, "Evaluating cryptographic security requirements in iot gateways," in *9th IEEE World Forum on Internet of Things, WF-IoT 2023, Aveiro, Portugal, October 12-27, 2023*, IEEE, 2023, pp. 1–6. DOI: 10.1109/WF-IOT58464.2023.10539403. [Online]. Available: https://doi.org/10.1109/WF-IoT58464.2023.10539403.

[18] C. F. Gonçalves, N. Antunes, and M. Vieira, "Intrusion injection for virtualized systems: Concepts and approach," in *53rd Annual IEEE/IFIP International Conference on Dependable Systems and Network, DSN 2023, Porto, Portugal, June 27-30, 2023*, IEEE, 2023, pp. 417–430. DOI: 10.1109/DSN58367.2023.00047. [Online]. Available: https://doi.org/10.1109/DSN58367.2023.00047.

[19] J. D. Pereira and M. Vieira, "An approach to characterize the security of open-source functions using LSP," in *34th IEEE International Symposium on Software Reliability Engineering, ISSRE 2023, Florence, Italy, October 9-12, 2023*, IEEE, 2023, pp. 137–147. DOI: 10.1109/ISSRE59848.2023.00073. [Online]. Available: https://doi.org/10.1109/ISSRE59848.2023.00073.

[20] H. Silva, M. Vieira, and A. Neto, "Are safety-critical systems really survivable to attacks?" In *IEEE International Systems Conference, SysCon 2023, Vancouver, BC, Canada, April 17-20, 2023*, IEEE, 2023, pp. 1–8. DOI: 10.1109/SYSCON53073.2023.10131114. [Online]. Available: https://doi.org/10.1109/SysCon53073.2023.10131114.

[21] B. Zamir, J. R. Campos, and M. Vieira, "Advanced machine learning for runtime data generation," in *12th Latin-American Symposium on Dependable and Secure Computing, LADC 2023, La Paz, Bolivia, October 16-18, 2023*, ACM, 2023, pp. 182–187. DOI: 10.1145/3615366.3622793. [Online]. Available: https://doi.org/10.1145/3615366.3622793.

[22] J. R. Campos, E. Costa, and M. Vieira, "A dataset of linux failure data for dependability evaluation and improvement," in *52nd Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN Workshops 2022, Baltimore, MD, USA, June 27-30, 2022*, IEEE, 2022, pp. 88–95. DOI: 10.1109/DSN-W54100.2022.00024. [Online]. Available: https://doi.org/10.1109/DSN-W54100.2022.00024.

[23] J. R. Campos, E. Costa, and M. Vieira, "On the applicability of machine learning-based online failure prediction for modern complex systems," in *18th European Dependable Computing Conference, EDCC 2022, Zaragoza, Spain, September 12-15, 2022*, IEEE, 2022, pp. 49–56. DOI: 10.1109/EDCC57035.2022.00019. [Online]. Available: https://doi.org/10.1109/EDCC57035.2022.00019.

[24] J. Castro, N. Laranjeiro, and M. Vieira, "Detecting dos attacks in microservice applications: Approach and case study," in *Proceedings of the 11th Latin-American Symposium on Dependable Computing, LADC 2022, Fortaleza/CE, Brazil, November 21-24, 2022*, ACM, 2022, pp. 73–78. DOI: 10.1145/3569902.3569916. [Online]. Available: https://doi.org/10.1145/3569902.3569916.

[25] E. F. Felix, F. A. A. Lins, O. O. Nóbrega, D. R. Gomes, B. A. Jesus, and M. Vieira, "Compliance evaluation of cryptographic security requirements on iot gateways," in *Proceedings of the 11th Latin-American Symposium on Dependable Computing, LADC 2022, Fortaleza/CE, Brazil, November 21-24, 2022*, ACM, 2022, pp. 67–72. DOI: 10.1145/3569902.3569915. [Online]. Available: https://doi.org/10.1145/3569902.3569915.

[26] J. D. Pereira, J. H. Antunes, and M. Vieira, "A software vulnerability dataset of large open source C/C++ projects," in *27th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2022, Beijing, China, November 28 - Dec. 1, 2022*, IEEE, 2022, pp. 152–163. DOI: 10.1109/PRDC55274.2022.00029. [Online]. Available: https://doi.org/10.1109/PRDC55274.2022.00029.

[27] J. D. Pereira, N. Lourenço, and M. Vieira, "On the use of deep graph CNN to detect vulnerable C functions," in *Proceedings of the 11th Latin-American Symposium on Dependable Computing, LADC 2022, Fortaleza/CE, Brazil, November 21-24, 2022*, ACM, 2022, pp. 45–50. DOI: 10.1145/3569902.3569913. [Online]. Available: https://doi.org/10.1145/3569902.3569913.

[28] J. D. Pereira, J. D. Ribeiro, J. Pires, P. Moita, N. Laranjeiro, and M. Vieira, "On the use of the TMA framework to promote self-adaptation capabilities in talkconnect," in *Proceedings of the 11th Latin-American Symposium on Dependable Computing, LADC 2022, Fortaleza/CE, Brazil, November 21-24, 2022*, ACM, 2022, pp. 89–90. DOI: 10.1145/3569902.3569953. [Online]. Available: https://doi.org/10.1145/3569902.3569953.

[29] M. Torquato, P. R. M. Maciel, and M. Vieira, "Software rejuvenation meets moving target defense: Modeling of time-based virtual machine migration approach," in *IEEE 33rd International Symposium on Software Reliability Engineering, ISSRE 2022, Charlotte, NC, USA, October 31 - Nov. 3, 2022*, IEEE, 2022, pp. 205–216. DOI: 10.1109/ISSRE55969.2022.00029. [Online]. Available: https://doi.org/10.1109/ISSRE55969.2022.00029.

[30] N. P. D. S. Medeiros, N. R. Ivaki, P. Costa, and M. Vieira, "An empirical study on software metrics and machine learning to identify untrustworthy code," in *17th European Dependable Computing Conference, EDCC 2021, Munich, Germany, September 13-16, 2021*, IEEE, 2021, pp. 87–94. DOI: 10.1109/EDCC53658.2021.00020. [Online]. Available: https://doi.org/10.1109/EDCC53658.2021.00020.

[31] J. D. Pereira, J. H. Antunes, and M. Vieira, "On building a vulnerability dataset with static information from the source code," in *10th Latin-American Symposium on Dependable Computing, LADC 2021, Florianópolis, Brazil, November 22-26, 2021*, IEEE, 2021, pp. 1–2. DOI: 10.1109/LADC53747.2021.9672589. [Online]. Available: https://doi.org/10.1109/LADC53747.2021.9672589.

[32] J. D. Pereira, J. R. Campos, and M. Vieira, "Machine learning to combine static analysis alerts with software metrics to detect security vulnerabilities: An empirical study," in *17th European Dependable Computing Conference, EDCC 2021, Munich, Germany, September 13-16, 2021*, IEEE, 2021, pp. 1–8. DOI: 10.1109/EDCC53658.2021.00008. [Online]. Available: https://doi.org/10.1109/EDCC53658.2021.00008.

[33] M. Torquato, P. Maciel, and M. Vieira, "Pymtdevaluator: A tool for time-based moving target defense evaluation: Tool description paper," in *32nd IEEE International Symposium on Software Reliability Engineering, ISSRE 2021, Wuhan, China, October 25-28, 2021*, Z. Jin et al., Eds., IEEE, 2021, pp. 357–366. DOI: 10.1109/ISSRE52982.2021.00045. [Online]. Available: https://doi.org/10.1109/ISSRE52982.2021.00045.

[34] M. Torquato, P. R. M. Maciel, and M. Vieira, "Analysis of VM migration scheduling as moving target defense against insider attacks," in *SAC '21: The 36th ACM/SIGAPP Symposium on Applied Computing, Virtual Event, Republic of Korea, March 22-26, 2021*, C. Hung, J. Hong, A. Bechini, and E. Song, Eds., ACM, 2021, pp. 194–202. DOI: 10.1145/

3412841.3441899. [Online]. Available: https://doi.org/10.1145/3412841.3441899.

[35] M. Torquato and M. Vieira, "VM migration scheduling as moving target defense against memory dos attacks: An empirical study," in *IEEE Symposium on Computers and Communications, ISCC 2021, Athens, Greece, September 5-8, 2021*, IEEE, 2021, pp. 1–6. DOI: 10.1109/ISCC53001.2021.9631397. [Online]. Available: https://doi.org/10.1109/ISCC53001.2021.9631397.

[36] J. R. Campos, E. Costa, and M. Vieira, "On configuring a testbed for dependability experiments: Guidelines and fault injection case study," in *Computer Safety, Reliability, and Security - 39th International Conference, SAFECOMP 2020, Lisbon, Portugal, September 16-18, 2020, Proceedings*, A. Casimiro, F. Ortmeier, F. Bitsch, and P. Ferreira, Eds., ser. Lecture Notes in Computer Science, vol. 12234, Springer, 2020, pp. 419–433. DOI: 10.1007/978-3-030-54549-9_28. [Online]. Available: https://doi.org/10.1007/978-3-030-54549-9%5C_28.

[37] C. F. Gonçalves, D. S. Menasché, A. Avritzer, N. Antunes, and M. Vieira, "A model-based approach to anomaly detection trading detection time and false alarm rate," in *Mediterranean Communication and Computer Networking Conference, MedComNet 2020, Arona, Italy, June 17-19, 2020*, IEEE, 2020, pp. 1–8. DOI: 10.1109/MEDCOMNET49392.2020.9191549. [Online]. Available: https://doi.org/10.1109/MedComNet49392.2020.9191549.

[38] J. D. Pereira and M. Vieira, "On the use of open-source C/C++ static analysis tools in large projects," in *16th European Dependable Computing Conference, EDCC 2020, Munich, Germany, September 7-10, 2020*, IEEE, 2020, pp. 97–102. DOI: 10.1109/EDCC51268.2020.00025. [Online]. Available: https://doi.org/10.1109/EDCC51268.2020.00025.

[39] J. D. Pereira et al., "A platform to enable self-adaptive cloud applications using trustworthiness properties," in *SEAMS '20: IEEE/ACM 15th International Symposium on Software Engineering for Adaptive and Self-Managing Systems, Seoul, Republic of Korea, 29 June - 3 July, 2020*, S. Honiden, E. D. Nitto, and R. Calinescu, Eds., ACM, 2020, pp. 71–77. DOI: 10.1145/3387939.3391608. [Online]. Available: https://doi.org/10.1145/3387939.3391608.

[40] M. Torquato, C. F. Gonçalves, and M. Vieira, "An availability model for DSS and OLTP applications in virtualized environments," in *16th European Dependable Computing Conference, EDCC 2020, Munich, Germany, September 7-10, 2020*, IEEE, 2020, pp. 85–92. DOI: 10.1109/EDCC51268.2020.00023. [Online]. Available: https://doi.org/10.1109/EDCC51268.2020.00023.

[41] M. Torquato, P. R. M. Maciel, and M. Vieira, "Security and availability modeling of VM migration as moving target defense," in *25th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2020, Perth, Australia, December 1-4, 2020*, IEEE, 2020, pp. 50–59. DOI: 10.1109/PRDC50213.2020.00016. [Online]. Available: https://doi.org/10.1109/PRDC50213.2020.00016.

[42] J. R. Campos, M. Vieira, and E. Costa, "Propheticus: Machine learning framework for the development of predictive models for reliable and secure software," in *30th IEEE International Symposium on Software Reliability Engineering, ISSRE 2019, Berlin, Germany, October 28-31, 2019*, K. Wolter et al., Eds., IEEE, 2019, pp. 173–182. DOI: 10.1109/ISSRE.2019.00026. [Online]. Available: https://doi.org/10.1109/ISSRE.2019.00026.

[43] C. I. Lemes, V. Naessens, and M. Vieira, "Trustworthiness assessment of web applications: Approach and experimental study using input validation coding practices," in *30th IEEE International Symposium on Software Reliability Engineering, ISSRE 2019, Berlin, Germany, October 28-31, 2019*, K. Wolter et al., Eds., IEEE, 2019, pp. 435–445. DOI: 10.1109/ISSRE.2019.00050. [Online]. Available: https://doi.org/10.1109/ISSRE.2019.00050.

[44] J. D. Pereira, J. R. Campos, and M. Vieira, "An exploratory study on machine learning to combine security vulnerability alerts from static analysis tools," in *9th Latin-American Symposium on Dependable Computing, LADC 2019, Natal, Brazil, November 19-21, 2019*, IEEE, 2019, pp. 1–10. DOI: 10.1109/LADC48089.2019.8995685. [Online]. Available: https://doi.org/10.1109/LADC48089.2019.8995685.

[45] M. Torquato, E. A. C. Guedes, P. R. M. Maciel, and M. Vieira, "A hierarchical model for virtualized data center availability evaluation," in *15th European Dependable Computing Conference, EDCC 2019, Naples, Italy, September 17-20, 2019*, IEEE, 2019, pp. 103–110. DOI: 10.1109/EDCC.2019.00029. [Online]. Available: https://doi.org/10.1109/EDCC.2019.00029.

[46] M. Torquato, L. Torquato, P. R. M. Maciel, and M. Vieira, "Iaas cloud availability planning using models and genetic algorithms," in *9th Latin-American Symposium on Dependable Computing, LADC 2019, Natal, Brazil, November 19-21, 2019*, IEEE, 2019, pp. 1–10. DOI: 10.1109/LADC48089.2019.8995734. [Online]. Available: https://doi.org/10.1109/LADC48089.2019.8995734.

[47] M. Torquato and M. Vieira, "An experimental study of software aging and rejuvenation in dockerd," in *15th European Dependable Computing Conference, EDCC 2019, Naples, Italy, September 17-20, 2019*, IEEE, 2019, pp. 1–6. DOI: 10.1109/EDCC.2019.00014. [Online]. Available: https://doi.org/10.1109/EDCC.2019.00014.

[48] A. Algaith, P. J. C. Nunes, J. Fonseca, I. Gashi, and M. Vieira, "Finding SQL injection and cross site scripting vulnerabilities with diverse static analysis tools," in *14th European Dependable Computing Conference, EDCC 2018, Iaşi, Romania, September 10-14, 2018*, IEEE Computer Society, 2018, pp. 57–64. DOI: 10.1109/EDCC.2018.00020. [Online]. Available: https://doi.org/10.1109/EDCC.2018.00020.

[49] A. S. Alic et al., "GIS and data: Three applications to enhance mobility," in *XIX Brazilian Symposium on Geoinformatics - GEOINFO 2018, Campina Grande, PB, Brazil, December 5-7, 2018*, L. Vinhas and C. E. C. Campelo, Eds., MCTIC/INPE, 2018, pp. 1–12. [Online]. Available: http://urlib.net/8JMKD3MGPDW34P/3SEUN7L.

[50] J. R. Campos, M. Vieira, and E. Costa, "Exploratory study of machine learning techniques for supporting failure prediction," in *14th European Dependable Computing Conference, EDCC 2018, Iaşi, Romania, September 10-14, 2018*, IEEE Computer Society, 2018, pp. 9–16. DOI: 10.1109/EDCC.2018.00014. [Online]. Available: https://doi.org/10.1109/EDCC.2018.00014.

[51] C. F. Gonçalves, N. Antunes, and M. Vieira, "Evaluating the applicability of robustness testing in virtualized environments," in *8th Latin-American Symposium on Dependable Computing, LADC 2018, Foz do Iguaçu, Brazil, October 8-10, 2018*, IEEE, 2018, pp. 161–166. DOI: 10.1109/LADC.2018.00027. [Online]. Available: https://doi.org/10.1109/LADC.2018.00027.

[52] N. P. D. S. Medeiros, N. R. Ivaki, P. Costa, and M. Vieira, "An approach for trustworthiness benchmarking using software metrics," in *23rd IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2018, Taipei, Taiwan, December 4-7, 2018*, IEEE, 2018, pp. 84–93. DOI: 10.1109/PRDC.2018.00019. [Online]. Available: https://doi.org/10.1109/PRDC.2018.00019.

[53] M. Torquato and M. Vieira, "Interacting SRN models for availability evaluation of VM migration as rejuvenation on a system under varying workload," in *2018 IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops, Memphis, TN, USA, October 15-18, 2018*, S. Ghosh, R. Natella, B. Cukic, R. S. Poston, and N. Laranjeiro, Eds., IEEE Computer Society, 2018, pp. 300–307. DOI: 10.1109/ISSREW.2018.00022. [Online]. Available: https://doi.org/10.1109/ISSREW.2018.00022.

[54] A. Algaith, I. A. Elia, I. Gashi, and M. Vieira, "Diversity with intrusion detection systems: An empirical study," in *16th IEEE International Symposium on Network Computing and Applications, NCA 2017, Cambridge, MA, USA, October 30 - November 1, 2017*, A. Gkoulalas-Divanis, M. P. Correia, and D. R. Avresky, Eds., IEEE Computer Society, 2017, pp. 19–23. DOI: 10.1109/NCA.2017.8171327. [Online]. Available: https://doi.org/10.1109/NCA.2017.8171327.

[55] T. Basso, R. Moraes, N. Antunes, M. Vieira, W. Santos, and W. M. Jr., "Privaaas: Privacy approach for a distributed cloud-based data analytics platforms," in *Proceedings of the 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, CCGRID 2017, Madrid, Spain, May 14-17, 2017*, IEEE Computer Society / ACM, 2017, pp. 1108–1116. DOI: 10.1109/CCGRID.2017.136. [Online]. Available: https://doi.org/10.1109/CCGRID.2017.136.

[56] A. M. Braga, R. Dahab, N. Antunes, N. Laranjeiro, and M. Vieira, "Practical evaluation of static analysis tools for cryptography: Benchmarking method and case study," in *28th IEEE International Symposium on Software Reliability Engineering, ISSRE 2017, Toulouse, France, October 23-26, 2017*, IEEE Computer Society, 2017, pp. 170–181. DOI: 10.1109/ISSRE.2017.27. [Online]. Available: https://doi.org/10.1109/ISSRE.2017.27.

[57] I. A. Elia, N. Antunes, N. Laranjeiro, and M. Vieira, "An analysis of openstack vulnerabilities," in *13th European Dependable Computing Conference, EDCC 2017, Geneva, Switzerland, September 4-8, 2017*, IEEE Computer Society, 2017, pp. 129–134. DOI: 10.1109/EDCC.2017.29. [Online]. Available: https://doi.org/10.1109/EDCC.2017.29.

[58] B. Martins, N. Laranjeiro, and M. Vieira, "INTENSE: interoperability testing as a service," in *2017 IEEE International Conference on Web Services, ICWS 2017, Honolulu, HI, USA, June 25-30, 2017*, I. Altintas and S. Chen, Eds., IEEE, 2017, pp. 792–799. DOI: 10.1109/ICWS.2017.95. [Online]. Available: https://doi.org/10.1109/ICWS.2017.95.

[59] N. P. D. S. Medeiros, N. R. Ivaki, P. Costa, and M. Vieira, "Software metrics as indicators of security vulnerabilities," in *28th IEEE International Symposium on Software Reliability Engineering, ISSRE 2017, Toulouse, France, October 23-26, 2017*, IEEE Computer Society, 2017, pp. 216–227. DOI: 10.1109/ISSRE.2017.11. [Online]. Available: https://doi.org/10.1109/ISSRE.2017.11.

[60] N. P. D. S. Medeiros, N. R. Ivaki, P. N. D. Costa, and M. P. A. Vieira, "Towards an approach for trustworthiness assessment of software as a service," in *IEEE International Conference on Edge Computing, EDGE 2017, Honolulu, HI, USA, June 25-30, 2017*, IEEE Computer Society, 2017, pp. 220–223. DOI: 10.1109/IEEE.EDGE.2017.39. [Online]. Available: https://doi.org/10.1109/IEEE.EDGE.2017.39.

[61] P. J. C. Nunes, I. Medeiros, J. Fonseca, N. F. Neves, M. Correia, and M. Vieira, "On combining diverse static analysis tools for web security: An empirical study," in *13th European Dependable Computing Conference, EDCC 2017, Geneva, Switzerland, September 4-8, 2017*, IEEE Computer Society, 2017, pp. 121–128. DOI: 10.1109/EDCC.2017.16. [Online]. Available: https://doi.org/10.1109/EDCC.2017.16.

[62] N. Silva, M. Vieira, J. C. Cunha, and R. Chillarege, "Evaluating a corpus of root causes and measures to guide RCA processes in critical software," in *18th IEEE International Symposium on High Assurance Systems Engineering, HASE 2017, Singapore, January 12-14, 2017*, IEEE Computer Society, 2017, pp. 17–24. DOI: 10.1109/HASE.2017.19. [Online]. Available: https://doi.org/10.1109/HASE.2017.19.

[63] N. Laranjeiro, N. R. Ivaki, and M. Vieira, "The 2016 IEEE services emerging technology track on dependable and secure services (DSS 2016)," in *IEEE World Congress on Services, SERVICES 2016, San Francisco, CA, USA, June 27 - July 2, 2016*, R. Bahsoon and L. Zhang, Eds., IEEE Computer Society, 2016, p. 47. DOI: 10.1109/SERVICES.2016.34. [Online]. Available: https://doi.org/10.1109/SERVICES.2016.34.

[64] A. Milenkoski, K. R. Jayaram, N. Antunes, M. Vieira, and S. Kounev, "Quantifying the attack detection accuracy of intrusion detection systems in virtualized environments," in *27th IEEE International Symposium on Software Reliability Engineering, ISSRE 2016, Ottawa, ON, Canada, October 23-27, 2016*, IEEE Computer Society, 2016, pp. 276–286. DOI: 10.1109/ISSRE.2016.39. [Online]. Available: https://doi.org/10.1109/ISSRE.2016.39.

[65] R. J. Santos, M. Vieira, and J. Bernardino, "XSX: lightweight encryption for data warehousing environments," in *Big Data Analytics and Knowledge Discovery - 18th International Conference, DaWaK 2016, Porto, Portugal, September 6-8, 2016, Proceedings*, S. Madria and T. Hara, Eds., ser. Lecture Notes in Computer Science, vol. 9829, Springer, 2016, pp. 281–295. DOI: 10.1007/978-3-319-43946-4_19. [Online]. Available: https://doi.org/10.1007/978-3-319-43946-4%5C_19.

[66] N. Silva and M. Vieira, "Adapting the orthogonal defect classification taxonomy to the space domain," in *Computer Safety, Reliability, and Security - 35th International Conference, SAFECOMP 2016, Trondheim, Norway, September 21-23, 2016, Proceedings*, A. Skavhaug, J. Guiochet, and F. Bitsch, Eds., ser. Lecture Notes in Computer Science, vol. 9922, Springer, 2016, pp. 296–308. DOI: 10.1007/978-3-319-45477-1_23. [Online]. Available: https://doi.org/10.1007/978-3-319-45477-1%5C_23.

[67] N. Silva and M. Vieira, "Software for embedded systems: A quality assessment based on improved ODC taxonomy," in *Proceedings of the 31st Annual ACM Symposium on Applied Computing, Pisa, Italy, April 4-8, 2016*, S. Ossowski, Ed., ACM, 2016, pp. 1780–1783. DOI: 10.1145/2851613.2851908. [Online]. Available: https://doi.org/10.1145/2851613.2851908.

[68] D. Vecchiato, M. Vieira, and E. Martins, "Risk assessment of user-defined security configurations for android devices," in *27th IEEE International Symposium on Software Reliability Engineering, ISSRE 2016, Ottawa, ON, Canada, October 23-27, 2016*, IEEE Computer Society, 2016, pp. 467–

477. DOI: 10.1109/ISSRE.2016.30. [Online]. Available: https://doi.org/10.1109/ISSRE.2016.30.

[69] N. Antunes and M. Vieira, "On the metrics for benchmarking vulnerability detection tools," in *45th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2015, Rio de Janeiro, Brazil, June 22-25, 2015*, IEEE Computer Society, 2015, pp. 505–516. DOI: 10.1109/DSN.2015.30. [Online]. Available: https://doi.org/10.1109/DSN.2015.30.

[70] C. Areias, J. C. Cunha, and M. Vieira, "Studying the propagation of failures in soas," in *IEEE International Conference on Dependable Systems and Networks Workshops, DSN Workshops 2015, Rio de Janeiro, Brazil, June 22-25, 2015*, IEEE Computer Society, 2015, pp. 81–86. DOI: 10.1109/DSN-W.2015.18. [Online]. Available: https://doi.org/10.1109/DSN-W.2015.18.

[71] T. Basso, R. Moraes, M. Jino, and M. Vieira, "Requirements, design and evaluation of a privacy reference architecture for web applications and services," in *Proceedings of the 30th Annual ACM Symposium on Applied Computing, Salamanca, Spain, April 13-17, 2015*, R. L. Wainwright, J. M. Corchado, A. Bechini, and J. Hong, Eds., ACM, 2015, pp. 1425–1432. DOI: 10.1145/2695664.2695774. [Online]. Available: https://doi.org/10.1145/2695664.2695774.

[72] A. Braz, C. M. F. Rubira, and M. Vieira, "Development of complex software with agile method," in *2015 Agile Conference, AGILE 2015, National Harbor, MD, USA, August 3-7, 2015*, IEEE Computer Society, 2015, pp. 97–101. DOI: 10.1109/AGILE.2015.18. [Online]. Available: https://doi.org/10.1109/Agile.2015.18.

[73] I. A. Elia, N. Laranjeiro, and M. Vieira, "Test-based interoperability certification for web services," in *45th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2015, Rio de Janeiro, Brazil, June 22-25, 2015*, IEEE Computer Society, 2015, pp. 196–206. DOI: 10.1109/DSN.2015.26. [Online]. Available: https://doi.org/10.1109/DSN.2015.26.

[74] I. Irrera and M. Vieira, "Towards assessing representativeness of fault injection-generated failure data for online failure prediction," in *IEEE International Conference on Dependable Systems and Networks Workshops, DSN Workshops 2015, Rio de Janeiro, Brazil, June 22-25, 2015*, IEEE Computer Society, 2015, pp. 75–80. DOI: 10.1109/DSN-W.2015.24. [Online]. Available: https://doi.org/10.1109/DSN-W.2015.24.

[75] I. Irrera, M. Vieira, and J. Durães, "Adaptive failure prediction for computer systems: A framework and a case study," in *16th IEEE International Symposium on High Assurance Systems Engineering, HASE 2015, Daytona Beach, FL, USA, January 8-10, 2015*, IEEE Computer Society, 2015, pp. 142–149. DOI: 10.1109/HASE.2015.29. [Online]. Available: https://doi.org/10.1109/HASE.2015.29.

[76] N. Laranjeiro, P. Furtado, and M. Vieira, "IEEE services visionary track on dependable and secure services (DSS 2015)," in *2015 IEEE World Congress on Services, SERVICES 2015, New York City, NY, USA, June 27 - July 2, 2015*, L. Zhang and R. Bahsoon, Eds., IEEE Computer Society, 2015, p. 302. DOI: 10.1109/SERVICES.2015.52. [Online]. Available: https://doi.org/10.1109/SERVICES.2015.52.

[77] J. R. Lourenço, V. Abramova, B. Cabral, J. Bernardino, P. Carreiro, and M. Vieira, "No SQL in practice: A write-heavy enterprise application," in *2015 IEEE International Congress on Big Data, New York City, NY, USA, June 27 - July 2, 2015*, B. Carminati and L. Khan, Eds., IEEE Computer Society, 2015, pp. 584–591. DOI: 10.1109/BIGDATACONGRESS.2015.90. [Online]. Available: https://doi.org/10.1109/BigDataCongress.2015.90.

[78] J. R. Lourenço, V. Abramova, M. Vieira, B. Cabral, and J. Bernardino, "Nosql databases: A software engineering perspective," in *New Contributions in Information Systems and Technologies - Volume 1 [WorldCIST'15, Azores, Portugal, April 1-3, 2015]*, Á. Rocha, A. M. R. Correia, S. Costanzo, and L. P. Reis, Eds., ser. Advances in Intelligent Systems and Computing, vol. 353, Springer, 2015, pp. 741–750. DOI: 10.1007/978-3-319-16486-1_73. [Online]. Available: https://doi.org/10.1007/978-3-319-16486-1%5C_73.

[79] A. Milenkoski et al., "Evaluation of intrusion detection systems in virtualized environments using attack injection," in *Research in Attacks, Intrusions, and Defenses - 18th International Symposium, RAID 2015, Kyoto, Japan, November 2-4, 2015, Proceedings*, H. Bos, F. Monrose, and G. Blanc, Eds., ser. Lecture Notes in Computer Science, vol. 9404, Springer, 2015, pp. 471–492. DOI: 10.1007/978-3-319-26362-5_22. [Online]. Available: https://doi.org/10.1007/978-3-319-26362-5%5C_22.

[80] P. J. C. Nunes, J. Fonseca, and M. Vieira, "Phpsafe: A security analysis tool for OOP web application plugins," in *45th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2015, Rio de Janeiro, Brazil, June 22-25, 2015*, IEEE Computer Society, 2015, pp. 299–306. DOI: 10.1109/DSN.2015.16. [Online]. Available: https://doi.org/10.1109/DSN.2015.16.

[81] R. A. Oliveira, N. Laranjeiro, and M. Vieira, "Characterizing the performance of web service frameworks under security attacks," in *Proceedings of the 30th Annual ACM Symposium on Applied Computing, Salamanca, Spain, April 13-17, 2015*, R. L. Wainwright, J. M. Corchado, A. Bechini, and J. Hong, Eds., ACM, 2015, pp. 1711–1718. DOI: 10.1145/2695664.2695927. [Online]. Available: https://doi.org/10.1145/2695664.2695927.

[82] N. Silva, M. Vieira, D. Ricci, and D. Cotroneo, "Assessment of defect type influence in complex and integrated space systems: Analysis based on ODC and ISVV issues," in *IEEE International Conference on Dependable Systems and Networks Workshops, DSN Workshops 2015, Rio de Janeiro, Brazil, June 22-25, 2015*, IEEE Computer Society, 2015, pp. 63–68. DOI: 10.1109/DSN-W.2015.19. [Online]. Available: https://doi.org/10.1109/DSN-W.2015.19.

[83] D. Vecchiato, M. Vieira, and E. Martins, "A security configuration assessment for android devices," in *Proceedings of the 30th Annual ACM Symposium on Applied Computing, Salamanca, Spain, April 13-17, 2015*, R. L. Wainwright, J. M. Corchado, A. Bechini, and J. Hong, Eds., ACM, 2015, pp. 2299–2304. DOI: 10.1145/2695664.2695679. [Online]. Available: https://doi.org/10.1145/2695664.2695679.

[84] D. R. Azevedo, A. M. Ambrosio, and M. Vieira, "Towards a resilience benchmarking description language for the context of satellite simulators (short paper)," in *2014 Tenth European Dependable Computing Conference, Newcastle, United Kingdom, May 13-16, 2014*, IEEE Computer Society, 2014, pp. 194–197. DOI: 10.1109/EDCC.2014.19. [Online]. Available: https://doi.org/10.1109/EDCC.2014.19.

[85] J. Cámara, P. Correia, R. de Lemos, and M. Vieira, "Empirical resilience evaluation of an architecture-based self-adaptive software system," in *QoSA'14, Proceedings of the 10th International ACM SIGSOFT Conference on Quality of Software Architectures (part of CompArch 2014), Marcq-en-Baroeul, Lille, France, June 30 - July 04, 2014*, L. Seinturier, T. Bures, and J. D. McGregor, Eds., ACM, 2014, pp. 63–72. DOI: 10.1145/2602576.2602577. [Online]. Available: https://doi.org/10.1145/2602576.2602577.

[86] J. Cámara, R. de Lemos, N. Laranjeiro, R. Ventura, and M. Vieira, "Robustness evaluation of the rainbow framework for self-adaptation," in *Symposium on Applied Computing, SAC 2014, Gyeongju, Republic of Korea - March 24 - 28, 2014*, Y. Cho, S. Y. Shin, S. Kim, C. Hung, and J. Hong, Eds., ACM, 2014, pp. 376–383. DOI: 10.1145/2554850.2554935. [Online]. Available: https://doi.org/10.1145/2554850.2554935.

[87] I. A. Elia, N. Laranjeiro, and M. Vieira, "A field perspective on the interoperability of web services," in *IEEE International Conference on Services Computing, SCC 2014, Anchorage, AK, USA, June 27 - July 2, 2014*, IEEE Computer Society, 2014, pp. 75–82. DOI: 10.1109/SCC.2014.19. [Online]. Available: https://doi.org/10.1109/SCC.2014.19.

[88] I. A. Elia, N. Laranjeiro, and M. Vieira, "ITWS: an extensible tool for interoperability testing of web services," in *2014 IEEE International Conference on Web Services, ICWS, 2014, Anchorage, AK, USA, June 27 - July 2, 2014*, IEEE Computer Society, 2014, pp. 409–416. DOI: 10.1109/ICWS.2014.65. [Online]. Available: https://doi.org/10.1109/ICWS.2014.65.

[89] I. A. Elia, N. Laranjeiro, and M. Vieira, "Understanding interoperability issues of web service frameworks," in *44th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2014, Atlanta, GA, USA, June 23-26, 2014*, IEEE Computer Society, 2014, pp. 323–330. DOI: 10.1109/DSN.2014.40. [Online]. Available: https://doi.org/10.1109/DSN.2014.40.

[90] J. C. C. M. da Fonseca and M. P. A. Vieira, "A practical experience on the impact of plugins in web security," in *33rd IEEE International Symposium on Reliable Distributed Systems, SRDS 2014, Nara, Japan, October 6-9, 2014*, IEEE Computer Society, 2014, pp. 21–30. DOI: 10.1109/SRDS.2014.20. [Online]. Available: https://doi.org/10.1109/SRDS.2014.20.

[91] I. Irrera, J. Durães, and M. Vieira, "On the need for training failure prediction algorithms in evolving software systems," in *15th International IEEE Symposium on High-Assurance Systems Engineering, HASE 2014, Miami Beach, FL, USA, January 9-11, 2014*, IEEE Computer Society, 2014, pp. 216–223. DOI: 10.1109/HASE.2014.38. [Online]. Available: https://doi.org/10.1109/HASE.2014.38.

[92] I. Irrera and M. Vieira, "A practical approach for generating failure data for assessing and comparing failure prediction algorithms," in *20th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2014, Singapore, November 18-21, 2014*, IEEE Computer Society, 2014, pp. 86–95. DOI: 10.1109/PRDC.2014.19. [Online]. Available: https://doi.org/10.1109/PRDC.2014.19.

[93] N. Laranjeiro, P. Furtado, and M. Vieira, "IEEE international workshop on dependable and secure services (DSS 2014)," in *2014 IEEE World Congress on Services, SERVICES 2014, Anchorage, AK, USA, June 27 - July 2, 2014*, IEEE Computer Society, 2014, pp. 198–199. DOI: 10.1109/SERVICES.2014.43. [Online]. Available: https://doi.org/10.1109/SERVICES.2014.43.

[94] A. Milenkoski, B. D. Payne, N. Antunes, M. Vieira, and S. Kounev, "Experience report: An analysis of hypercall handler vulnerabilities," in *25th IEEE International Symposium on Software Reliability Engineering, ISSRE 2014, Naples, Italy, November 3-6, 2014*, IEEE Computer Society, 2014, pp. 100–111. DOI: 10.1109/ISSRE.2014.24. [Online]. Available: https://doi.org/10.1109/ISSRE.2014.24.

[95] L. E. Santos, M. Curado, and M. Vieira, "A research agenda for benchmarking the resilience of software defined networks," in *25th IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops, Naples, Italy, November 3-6, 2014*, IEEE Computer Society, 2014, pp. 168–173. DOI: 10.1109/ISSREW.2014.22. [Online]. Available: https://doi.org/10.1109/ISSREW.2014.22.

[96] N. Silva and M. Vieira, "Experience report: Orthogonal classification of safety critical issues," in *25th IEEE International Symposium on Software Reliability Engineering, ISSRE 2014, Naples, Italy, November 3-6, 2014*, IEEE Computer Society, 2014, pp. 156–166. DOI: 10.1109/ISSRE.2014.25. [Online]. Available: https://doi.org/10.1109/ISSRE.2014.25.

[97] N. Silva and M. Vieira, "Towards making safety-critical systems safer: Learning from mistakes," in *25th IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops, Naples, Italy, November 3-6, 2014*, IEEE Computer Society, 2014, pp. 162–167. DOI: 10.1109/ISSREW.2014.97. [Online]. Available: https://doi.org/10.1109/ISSREW.2014.97.

[98] R. Almeida, A. A. Neto, and M. Vieira, "Score: An across-the-board metric for computer systems resilience benchmarking," in *43rd Annual IEEE/IFIP Conference on Dependable Systems and Networks Workshop, DSN Workshops 2013, Budapest, Hungary, June 24-27, 2013*, IEEE Computer Society, 2013, pp. 1–8. DOI: 10.1109/DSNW.2013.6615542. [Online]. Available: https://doi.org/10.1109/DSNW.2013.6615542.

[99] N. Antunes, F. Brancati, A. Ceccarelli, A. Bondavalli, and M. Vieira, "A monitoring and testing framework for critical off-the-shelf applications and services," in *IEEE 24th International Symposium on Software Reliability Engineering, ISSRE 2013, Pasadena, CA, USA, November 4-7, 2013 - Supplemental Proceedings*, IEEE Computer Society, 2013, pp. 371–374. DOI: 10.1109/ISSREW.2013.6688923. [Online]. Available: https://doi.org/10.1109/ISSREW.2013.6688923.

[100] N. Antunes and M. Vieira, "Soa-scanner: An integrated tool to detect vulnerabilities in service-based infrastructures," in *2013 IEEE International Conference on Services Computing, Santa Clara, CA, USA, June 28 - July 3, 2013*, IEEE Computer Society, 2013, pp. 280–287. DOI: 10.1109/SCC.2013.28. [Online]. Available: https://doi.org/10.1109/SCC.2013.28.

[101] D. R. Azevedo, A. M. Ambrosio, and M. Vieira, "HLA middleware robustness and scalability evaluation in the context of satellite simulators," in *IEEE 19th Pacific Rim International Symposium on Dependable Computing, PRDC 2013, Vancouver, BC, Canada, December 2-4, 2013*, IEEE Computer Society, 2013, pp. 312–317. DOI: 10.1109/PRDC.2013.53. [Online]. Available: https://doi.org/10.1109/PRDC.2013.53.

[102] T. Basso, N. Antunes, R. Moraes, and M. Vieira, "An xml-based policy model for access control in web applications," in *Database and Expert Systems Applications - 24th International Conference, DEXA 2013, Prague, Czech Republic, August 26-29, 2013. Proceedings, Part II*, H. Decker, L. Lhotská, S. Link, J. Basl, and A. M. Tjoa, Eds., ser. Lecture Notes in Computer Science, vol. 8056, Springer, 2013, pp. 274–288.

DOI: 10.1007/978-3-642-40173-2_23. [Online]. Available: https://doi.org/10.1007/978-3-642-40173-2%5C_23.

[103] J. Cámara, R. de Lemos, N. Laranjeiro, R. Ventura, and M. Vieira, "Robustness evaluation of controllers in self-adaptive software systems," in *Sixth Latin-American Symposium on Dependable Computing, LADC 2013, Rio de Janeiro, Brazil, April 1-5, 2013*, IEEE Computer Society, 2013, pp. 1–10. DOI: 10.1109/LADC.2013.17. [Online]. Available: https://doi.org/10.1109/LADC.2013.17.

[104] I. Irrera, J. Durães, H. Madeira, and M. Vieira, "Assessing the impact of virtualization on the generation of failure prediction data," in *Sixth Latin-American Symposium on Dependable Computing, LADC 2013, Rio de Janeiro, Brazil, April 1-5, 2013*, IEEE Computer Society, 2013, pp. 92–97. DOI: 10.1109/LADC.2013.24. [Online]. Available: https://doi.org/10.1109/LADC.2013.24.

[105] I. Irrera, C. Pereira, and M. Vieira, "The time dimension in predicting failures: A case study," in *Sixth Latin-American Symposium on Dependable Computing, LADC 2013, Rio de Janeiro, Brazil, April 1-5, 2013*, IEEE Computer Society, 2013, pp. 86–91. DOI: 10.1109/LADC.2013.25. [Online]. Available: https://doi.org/10.1109/LADC.2013.25.

[106] N. R. Ivaki, N. Laranjeiro, and M. Vieira, "Towards evaluating the impact of data quality on service applications," in *43rd Annual IEEE/IFIP Conference on Dependable Systems and Networks Workshop, DSN Workshops 2013, Budapest, Hungary, June 24-27, 2013*, IEEE Computer Society, 2013, pp. 1–7. DOI: 10.1109/DSNW.2013.6615509. [Online]. Available: https://doi.org/10.1109/DSNW.2013.6615509.

[107] R. J. Santos, D. M. L. D. Rasteiro, J. Bernardino, and M. Vieira, "A specific encryption solution for data warehouses," in *Database Systems for Advanced Applications, 18th International Conference, DASFAA 2013, Wuhan, China, April 22-25, 2013. Proceedings, Part II*, W. Meng, L. Feng, S. Bressan, W. Winiwarter, and W. Song, Eds., ser. Lecture Notes in Computer Science, Springer, 2013, pp. 84–98. DOI: 10.1007/978-3-642-37450-0_6. [Online]. Available: https://doi.org/10.1007/978-3-642-37450-0%5C_6.

[108] N. Silva, R. Barbosa, J. C. Cunha, and M. Vieira, "A view on the past and future of fault injection," in *2013 43rd Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), Budapest, Hungary, June 24-27, 2013*, IEEE Computer Society, 2013, pp. 1–2. DOI: 10.1109/DSN.2013.6575332. [Online]. Available: https://doi.org/10.1109/DSN.2013.6575332.

[109] N. Silva and M. Vieira, "Certification of embedded systems: Quantitative analysis and irrefutable evidences," in *IEEE 24th International Symposium on Software Reliability Engineering, ISSRE 2013, Pasadena, CA, USA, November 4-7, 2013 - Supplemental Proceedings*, IEEE Computer

Society, 2013, pp. 15–16. DOI: 10.1109/ISSREW.2013.6688854. [Online]. Available: https://doi.org/10.1109/ISSREW.2013.6688854.

[110] R. Almeida and M. Vieira, "Changeloads for resilience benchmarking of self-adaptive systems: A risk-based approach," in *2012 Ninth European Dependable Computing Conference, Sibiu, Romania, May 8-11, 2012*, C. Constantinescu and M. P. Correia, Eds., IEEE Computer Society, 2012, pp. 173–184. DOI: 10.1109/EDCC.2012.30. [Online]. Available: https://doi.org/10.1109/EDCC.2012.30.

[111] R. Almeida and M. Vieira, "Changeloads: A fundamental piece on the SASO systems benchmarking puzzle," in *Sixth IEEE International Conference on Self-Adaptive and Self-Organizing Systems Workshops, SASOW 2012, Lyon, France, September 10-14, 2012*, IEEE Computer Society, 2012, pp. 93–96. DOI: 10.1109/SASOW.2012.25. [Online]. Available: https://doi.org/10.1109/SASOW.2012.25.

[112] N. Antunes and M. Vieira, "Detecting vulnerabilities in service oriented architectures," in *23rd IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops, Dallas, TX, USA, November 27-30, 2012*, IEEE Computer Society, 2012, pp. 134–139. DOI: 10.1109/ISSREW.2012.33. [Online]. Available: https://doi.org/10.1109/ISSREW.2012.33.

[113] N. Antunes and M. Vieira, "Evaluating and improving penetration testing in web services," in *23rd IEEE International Symposium on Software Reliability Engineering, ISSRE 2012, Dallas, TX, USA, November 27-30, 2012*, IEEE Computer Society, 2012, pp. 201–210. DOI: 10.1109/ISSRE.2012.26. [Online]. Available: https://doi.org/10.1109/ISSRE.2012.26.

[114] D. R. Azevedo, A. M. Ambrosio, and M. Vieira, "Applying data mining for detecting anomalies in satellites," in *2012 Ninth European Dependable Computing Conference, Sibiu, Romania, May 8-11, 2012*, C. Constantinescu and M. P. Correia, Eds., IEEE Computer Society, 2012, pp. 212–217. DOI: 10.1109/EDCC.2012.19. [Online]. Available: https://doi.org/10.1109/EDCC.2012.19.

[115] I. L. Margarido, J. P. Faria, R. M. Vidal, and M. Vieira, "Towards a framework to evaluate and improve the quality of implementation of cmmi® practices," in *Product-Focused Software Process Improvement - 13th International Conference, PROFES 2012, Madrid, Spain, June 13-15, 2012 Proceedings*, O. Dieste, A. Jedlitschka, and N. J. Juzgado, Eds., ser. Lecture Notes in Computer Science, vol. 7343, Springer, 2012, pp. 361–365. DOI: 10.1007/978-3-642-31063-8_29. [Online]. Available: https://doi.org/10.1007/978-3-642-31063-8%5C_29.

[116] I. L. Margarido, R. M. Vidal, and M. Vieira, "Lessons learnt in the implementation of CMMI maturity level 5," in *8th International Conference on the Quality of Information and Communications Technology, QUATIC 2012, Lisbon, Portugal, 2-6 September 2012, Proceedings*, J. P.

Faria, A. R. da Silva, and R. J. Machado, Eds., IEEE Computer Society, 2012, pp. 47–56. DOI: 10.1109/QUATIC.2012.37. [Online]. Available: https://doi.org/10.1109/QUATIC.2012.37.

[117] R. A. Oliveira, N. Laranjeiro, and M. Vieira, "Experimental evaluation of web service frameworks in the presence of security attacks," in *2012 IEEE Ninth International Conference on Services Computing, Honolulu, HI, USA, June 24-29, 2012*, L. E. Moser, M. Parashar, and P. C. K. Hung, Eds., IEEE Computer Society, 2012, pp. 633–640. DOI: 10.1109/SCC.2012.52. [Online]. Available: https://doi.org/10.1109/SCC.2012.52.

[118] R. J. Santos, J. Bernardino, and M. Vieira, "DBMS application layer intrusion detection for data warehouses," in *Building Sustainable Information Systems, Proceedings of the 2012 International Conference on Information Systems Development, ISD 2012, Monash University Prato Centre, Prato, Italy, August 29-30, 2012*, H. Linger, J. Fisher, A. Barnden, C. Barry, M. Lang, and C. Schneider, Eds., Springer, 2012, pp. 493–507. DOI: 10.1007/978-1-4614-7540-8_38. [Online]. Available: https://doi.org/10.1007/978-1-4614-7540-8%5C_38.

[119] R. J. Santos, J. Bernardino, and M. Vieira, "Evaluating the feasibility issues of data confidentiality solutions from a data warehousing perspective," in *Data Warehousing and Knowledge Discovery - 14th International Conference, DaWaK 2012, Vienna, Austria, September 3-6, 2012. Proceedings*, A. Cuzzocrea and U. Dayal, Eds., ser. Lecture Notes in Computer Science, vol. 7448, Springer, 2012, pp. 404–416. DOI: 10.1007/978-3-642-32584-7_33. [Online]. Available: https://doi.org/10.1007/978-3-642-32584-7%5C_33.

[120] R. J. Santos, J. Bernardino, and M. Vieira, "Leveraging 24/7 availability and performance for distributed real-time data warehouses," in *36th Annual IEEE Computer Software and Applications Conference, COMPSAC 2012, Izmir, Turkey, July 16-20, 2012*, X. Bai et al., Eds., IEEE Computer Society, 2012, pp. 654–659. DOI: 10.1109/COMPSAC.2012.92. [Online]. Available: https://doi.org/10.1109/COMPSAC.2012.92.

[121] R. J. Santos, J. Bernardino, M. Vieira, and D. M. L. D. Rasteiro, "Securing data warehouses from web-based intrusions," in *Web Information Systems Engineering - WISE 2012 - 13th International Conference, Paphos, Cyprus, November 28-30, 2012. Proceedings*, X. S. Wang, I. F. Cruz, A. Delis, and G. Huang, Eds., ser. Lecture Notes in Computer Science, vol. 7651, Springer, 2012, pp. 681–688. DOI: 10.1007/978-3-642-35063-4_53. [Online]. Available: https://doi.org/10.1007/978-3-642-35063-4%5C_53.

[122] L. Wyatt, B. Caufield, M. Vieira, and M. Poess, "Incorporating recovery from failures into a data integration benchmark," in *Selected Topics in Performance Evaluation and Benchmarking - 4th TPC Technology Conference, TPCTC 2012, Istanbul, Turkey, August 27, 2012, Revised Selected Papers*, R. O. Nambiar and M. Poess, Eds., ser. Lecture

Notes in Computer Science, vol. 7755, Springer, 2012, pp. 21–33. DOI: 10.1007/978-3-642-36727-4_2. [Online]. Available: https://doi.org/10.1007/978-3-642-36727-4%5C_2.

[123] R. Almeida and M. Vieira, "Benchmarking the resilience of self-adaptive software systems: Perspectives and challenges," in *2011 ICSE Symposium on Software Engineering for Adaptive and Self-Managing Systems, SEAMS 2011, Waikiki, Honolulu , HI, USA, May 23-24, 2011*, H. Giese and B. H. C. Cheng, Eds., ACM, 2011, pp. 190–195. DOI: 10.1145/1988008.1988035. [Online]. Available: https://doi.org/10.1145/1988008.1988035.

[124] N. Antunes and M. Vieira, "Enhancing penetration testing with attack signatures and interface monitoring for the detection of injection vulnerabilities in web services," in *IEEE International Conference on Services Computing, SCC 2011, Washington, DC, USA, 4-9 July, 2011*, H. Jacobsen, Y. Wang, and P. Hung, Eds., IEEE Computer Society, 2011, pp. 104–111. DOI: 10.1109/SCC.2011.67. [Online]. Available: https://doi.org/10.1109/SCC.2011.67.

[125] A. Ceccarelli, M. Vieira, and A. Bondavalli, "A service discovery approach for testing dynamic soas," in *14th IEEE International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing Workshops, ISORC Workshops 2011, Newport Beach, CA, USA, March 28-31, 2011*, IEEE Computer Society, 2011, pp. 133–142. DOI: 10.1109/ISORCW.2011.23. [Online]. Available: https://doi.org/10.1109/ISORCW.2011.23.

[126] A. Ceccarelli, M. Vieira, and A. Bondavalli, "A testing service for lifelong validation of dynamic SOA," in *13th IEEE International Symposium on High-Assurance Systems Engineering, HASE 2011, Boca Raton, FL, USA, November 10-12, 2011*, T. M. Khoshgoftaar, Ed., IEEE Computer Society, 2011, pp. 1–8. DOI: 10.1109/HASE.2011.18. [Online]. Available: https://doi.org/10.1109/HASE.2011.18.

[127] J. C. Cunha, S. Cruz, M. Costa, A. R. Rodrigues, and M. Vieira, "Implementing software effort estimation in a medium-sized company," in *34th Annual IEEE Software Engineering Workshop, SEW 2011, Limerick, Ireland, June 20-21, 2011*, J. L. Rash and C. A. Rouff, Eds., IEEE Computer Society, 2011, pp. 92–96. DOI: 10.1109/SEW.2011.19. [Online]. Available: https://doi.org/10.1109/SEW.2011.19.

[128] A. A. Neto and M. Vieira, "Selecting software packages for secure database installations," in *Sixth International Conference on Availability, Reliability and Security, ARES 2011, Vienna, Austria, August 22-26, 2011*, IEEE Computer Society, 2011, pp. 67–74. DOI: 10.1109/ARES.2011.19. [Online]. Available: https://doi.org/10.1109/ARES.2011.19.

[129] A. A. Neto and M. Vieira, "TO benchmark or NOT TO benchmark security: That is the question," in *IEEE/IFIP International Conference on Dependable Systems and Networks Workshops (DSN-W 2011), Hong Kong, China, June 27-30, 2011*, IEEE Computer Society, 2011, pp. 182–187. DOI: 10.1109/DSNW.2011.5958810. [Online]. Available: https://doi.org/10.1109/DSNW.2011.5958810.

[130] A. A. Neto and M. Vieira, "Towards benchmarking the trustworthiness of web applications code," in *Proceedings of the 13th European Workshop on Dependable Computing, EWDC '11, Pisa, Italy, May 11-12, 2011*, F. D. Giandomenico, Ed., ACM, 2011, pp. 29–34. DOI: 10.1145/1978582.1978589. [Online]. Available: https://doi.org/10.1145/1978582.1978589.

[131] A. A. Neto and M. Vieira, "Trustworthiness benchmarking of web applications using static code analysis," in *Sixth International Conference on Availability, Reliability and Security, ARES 2011, Vienna, Austria, August 22-26, 2011*, IEEE Computer Society, 2011, pp. 224–229. DOI: 10.1109/ARES.2011.37. [Online]. Available: https://doi.org/10.1109/ARES.2011.37.

[132] R. A. Oliveira, N. Laranjeiro, and M. Vieira, "A composed approach for automatic classification of web services robustness," in *IEEE International Conference on Services Computing, SCC 2011, Washington, DC, USA, 4-9 July, 2011*, H. Jacobsen, Y. Wang, and P. Hung, Eds., IEEE Computer Society, 2011, pp. 176–183. DOI: 10.1109/SCC.2011.19. [Online]. Available: https://doi.org/10.1109/SCC.2011.19.

[133] D. Rodrigues et al., "Application of SOA in safety-critical embedded systems," in *Convergence and Hybrid Information Technology - 5th International Conference, ICHIT 2011, Daejeon, Korea, September 22-24, 2011. Proceedings*, G. Lee, D. Howard, and D. Slezak, Eds., ser. Communications in Computer and Information Science, vol. 206, Springer, 2011, pp. 345–354. DOI: 10.1007/978-3-642-24106-2_45. [Online]. Available: https://doi.org/10.1007/978-3-642-24106-2%5C_45.

[134] R. J. Santos, J. Bernardino, and M. Vieira, "24/7 real-time data warehousing: A tool for continuous actionable knowledge," in *Proceedings of the 35th Annual IEEE International Computer Software and Applications Conference, COMPSAC 2011, Munich, Germany, 18-22 July 2011*, IEEE Computer Society, 2011, pp. 279–288. DOI: 10.1109/COMPSAC.2011.44. [Online]. Available: https://doi.org/10.1109/COMPSAC.2011.44.

[135] R. J. Santos, J. Bernardino, and M. Vieira, "A data masking technique for data warehouses," in *15th International Database Engineering and Applications Symposium (IDEAS 2011), September 21 - 27, 2011, Lisbon, Portugal*, B. C. Desai, I. F. Cruz, and J. Bernardino, Eds., ACM, 2011, pp. 61–69. DOI: 10.1145/2076623.2076632. [Online]. Available: https://doi.org/10.1145/2076623.2076632.

[136] R. J. Santos, J. Bernardino, and M. Vieira, "A survey on data security in data warehousing: Issues, challenges and opportunities," in *Proceedings of EUROCON 2011, International Conference on Computer as a Tool, 27-29 April 2011, Lisbon, Portugal*, IEEE, 2011, pp. 1–4. DOI: 10.1109/EUROCON.2011.5929314. [Online]. Available: https://doi.org/10.1109/EUROCON.2011.5929314.

[137] R. J. Santos, J. Bernardino, and M. Vieira, "Balancing security and performance for enhancing data privacy in data warehouses," in *IEEE 10th International Conference on Trust, Security and Privacy in Computing and Communications, TrustCom 2011, Changsha, China, 16-18 November, 2011*, IEEE Computer Society, 2011, pp. 242–249. DOI: 10.1109/TRUSTCOM.2011.33. [Online]. Available: https://doi.org/10.1109/TrustCom.2011.33.

[138] M. Vieira, H. Madeira, S. Cruz, M. Costa, and J. C. Cunha, "Integrating GQM and data warehousing for the definition of software reuse metrics," in *34th Annual IEEE Software Engineering Workshop, SEW 2011, Limerick, Ireland, June 20-21, 2011*, J. L. Rash and C. A. Rouff, Eds., IEEE Computer Society, 2011, pp. 112–116. DOI: 10.1109/SEW.2011.22. [Online]. Available: https://doi.org/10.1109/SEW.2011.22.

[139] R. Almeida, H. Madeira, and M. Vieira, "Benchmarking the resilience of self-adaptive systems: A new research challenge," in *29th IEEE Symposium on Reliable Distributed Systems (SRDS 2010), New Delhi, Punjab, India, October 31 - November 3, 2010*, IEEE Computer Society, 2010, pp. 348–352. DOI: 10.1109/SRDS.2010.50. [Online]. Available: https://doi.org/10.1109/SRDS.2010.50.

[140] R. Almeida, H. Madeira, and M. Vieira, "From performance to resilience benchmarking," in *30th IEEE International Conference on Distributed Computing Systems Workshops (ICDCS 2010 Workshops), 21-25 June 2010, Genova, Italy*, IEEE Computer Society, 2010, pp. 286–287. DOI: 10.1109/ICDCSW.2010.69. [Online]. Available: https://doi.org/10.1109/ICDCSW.2010.69.

[141] R. Almeida, M. Poess, R. O. Nambiar, I. Patil, and M. Vieira, "How to advance TPC benchmarks with dependability aspects," in *Performance Evaluation, Measurement and Characterization of Complex Systems - Second TPC Technology Conference, TPCTC 2010, Singapore, September 13-17, 2010. Revised Selected Papers*, R. O. Nambiar and M. Poess, Eds., ser. Lecture Notes in Computer Science, vol. 6417, Springer, 2010, pp. 57–72. DOI: 10.1007/978-3-642-18206-8_5. [Online]. Available: https://doi.org/10.1007/978-3-642-18206-8%5C_5.

[142] N. Antunes and M. Vieira, "Benchmarking vulnerability detection tools for web services," in *IEEE International Conference on Web Services, ICWS 2010, Miami, Florida, USA, July 5-10, 2010*, IEEE Computer Society, 2010, pp. 203–210. DOI: 10.1109/ICWS.2010.76. [Online]. Available: https://doi.org/10.1109/ICWS.2010.76.

[143] I. A. Elia, J. Fonseca, and M. Vieira, "Comparing SQL injection detection tools using attack injection: An experimental study," in *IEEE 21st International Symposium on Software Reliability Engineering, ISSRE 2010, San Jose, CA, USA, 1-4 November 2010*, IEEE Computer Society, 2010, pp. 289–298. DOI: 10.1109/ISSRE.2010.32. [Online]. Available: https://doi.org/10.1109/ISSRE.2010.32.

[144] J. Fonseca, M. Vieira, and H. Madeira, "The web attacker perspective - A field study," in *IEEE 21st International Symposium on Software Reliability Engineering, ISSRE 2010, San Jose, CA, USA, 1-4 November 2010*, IEEE Computer Society, 2010, pp. 299–308. DOI: 10.1109/ISSRE.2010.21. [Online]. Available: https://doi.org/10.1109/ISSRE.2010.21.

[145] I. Irrera, J. Durães, M. Vieira, and H. Madeira, "Towards identifying the best variables for failure prediction using injection of realistic software faults," in *16th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2010, Tokyo, Japan, December 13-15, 2010*, Y. Ishikawa, D. Tang, and H. Nakamura, Eds., IEEE Computer Society, 2010, pp. 3–10. DOI: 10.1109/PRDC.2010.51. [Online]. Available: https://doi.org/10.1109/PRDC.2010.51.

[146] N. Laranjeiro, R. A. Oliveira, and M. Vieira, "Applying text classification algorithms in web services robustness testing," in *29th IEEE Symposium on Reliable Distributed Systems (SRDS 2010), New Delhi, Punjab, India, October 31 - November 3, 2010*, IEEE Computer Society, 2010, pp. 255–264. DOI: 10.1109/SRDS.2010.36. [Online]. Available: https://doi.org/10.1109/SRDS.2010.36.

[147] N. Laranjeiro, M. Vieira, and H. Madeira, "A learning-based approach to secure web services from sql/xpath injection attacks," in *16th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2010, Tokyo, Japan, December 13-15, 2010*, Y. Ishikawa, D. Tang, and H. Nakamura, Eds., IEEE Computer Society, 2010, pp. 191–198. DOI: 10.1109/PRDC.2010.24. [Online]. Available: https://doi.org/10.1109/PRDC.2010.24.

[148] P. C. Véras, E. Villani, A. M. Ambrosio, R. P. Pontes, M. Vieira, and H. Madeira, "Benchmarking software requirements documentation for space application," in *Computer Safety, Reliability, and Security, 29th International Conference, SAFECOMP 2010, Vienna, Austria, September 14-17, 2010. Proceedings*, E. Schoitsch, Ed., ser. Lecture Notes in Computer Science, vol. 6351, Springer, 2010, pp. 112–125. DOI: 10.1007/978-3-642-15651-9_9. [Online]. Available: https://doi.org/10.1007/978-3-642-15651-9%5C_9.

[149] P. C. Véras, E. Villani, A. M. Ambrosio, N. Silva, M. Vieira, and H. Madeira, "Errors on space software requirements: A field study and application scenarios," in *IEEE 21st International Symposium on Software Reliability Engineering, ISSRE 2010, San Jose, CA, USA, 1-4 November*

2010, IEEE Computer Society, 2010, pp. 61–70. DOI: 10.1109/ISSRE.2010.30. [Online]. Available: https://doi.org/10.1109/ISSRE.2010.30.

[150] N. Antunes, N. Laranjeiro, M. Vieira, and H. Madeira, "Effective detection of sql/xpath injection vulnerabilities in web services," in *2009 IEEE International Conference on Services Computing (SCC 2009), 21-25 September 2009, Bangalore, India*, IEEE Computer Society, 2009, pp. 260–267. DOI: 10.1109/SCC.2009.23. [Online]. Available: https://doi.org/10.1109/SCC.2009.23.

[151] N. Antunes and M. Vieira, "Comparing the effectiveness of penetration testing and static code analysis on the detection of SQL injection vulnerabilities in web services," in *2009 15th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2009, Shanghai, China, 16-18 November 2009*, IEEE Computer Society, 2009, pp. 301–306. DOI: 10.1109/PRDC.2009.54. [Online]. Available: https://doi.org/10.1109/PRDC.2009.54.

[152] N. Antunes and M. Vieira, "Detecting SQL injection vulnerabilities in web services," in *Fourth Latin-American Symposium on Dependable Computing, LADC 2009, João Pessoa, Brazil, 1-4 September 2009*, IEEE Computer Society, 2009, pp. 17–24. DOI: 10.1109/LADC.2009.21. [Online]. Available: https://doi.org/10.1109/LADC.2009.21.

[153] J. Fonseca, M. Vieira, and H. Madeira, "Vulnerability & attack injection for web applications," in *Proceedings of the 2009 IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2009, Estoril, Lisbon, Portugal, June 29 - July 2, 2009*, IEEE Computer Society, 2009, pp. 93–102. DOI: 10.1109/DSN.2009.5270349. [Online]. Available: https://doi.org/10.1109/DSN.2009.5270349.

[154] N. Laranjeiro, M. Vieira, and H. Madeira, "Improving web services robustness," in *IEEE International Conference on Web Services, ICWS 2009, Los Angeles, CA, USA, 6-10 July 2009*, IEEE Computer Society, 2009, pp. 397–404. DOI: 10.1109/ICWS.2009.27. [Online]. Available: https://doi.org/10.1109/ICWS.2009.27.

[155] N. Laranjeiro, M. Vieira, and H. Madeira, "Predicting timing failures in web services," in *Database Systems for Advanced Applications, DASFAA 2009 International Workshops: BenchmarX, MCIS, WDPP, PPDA, MBC, PhD, Brisbane, Australia, April 20-23, 2009*, L. Chen, C. Liu, Q. Liu, and K. Deng, Eds., ser. Lecture Notes in Computer Science, vol. 5667, Springer, 2009, pp. 182–196. DOI: 10.1007/978-3-642-04205-8_16. [Online]. Available: https://doi.org/10.1007/978-3-642-04205-8%5C_16.

[156] N. Laranjeiro, M. Vieira, and H. Madeira, "Protecting database centric web services against sql/xpath injection attacks," in *Database and Expert Systems Applications, 20th International Conference, DEXA 2009, Linz, Austria, August 31 - September 4, 2009. Proceedings*, S. S. Bhowmick, J.

Küng, and R. R. Wagner, Eds., ser. Lecture Notes in Computer Science, vol. 5690, Springer, 2009, pp. 271–278. DOI: 10.1007/978-3-642-03573-9_22. [Online]. Available: https://doi.org/10.1007/978-3-642-03573-9%5C_22.

[157] P. Marques, P. Gomes, M. Vieira, J. Prieto, V. Navarro, and M. Pecchioli, "BIRF: keeping software development under control across the organization," in *The Fourth International Conference on Software Engineering Advances, ICSEA 2009, 20-25 September 2009, Porto, Portugal*, K. Boness, J. M. Fernandes, J. G. Hall, R. J. Machado, and R. Oberhauser, Eds., IEEE Computer Society, 2009, pp. 458–464. DOI: 10.1109/ICSEA.2009.73. [Online]. Available: https://doi.org/10.1109/ICSEA.2009.73.

[158] A. A. Neto and M. Vieira, "A trust-based benchmark for DBMS configurations," in *2009 15th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2009, Shanghai, China, 16-18 November 2009*, IEEE Computer Society, 2009, pp. 143–150. DOI: 10.1109/PRDC.2009.31. [Online]. Available: https://doi.org/10.1109/PRDC.2009.31.

[159] A. A. Neto and M. Vieira, "Appraisals based on security best practices for software configurations," in *Fourth Latin-American Symposium on Dependable Computing, LADC 2009, João Pessoa, Brazil, 1-4 September 2009*, IEEE Computer Society, 2009, pp. 57–64. DOI: 10.1109/LADC.2009.18. [Online]. Available: https://doi.org/10.1109/LADC.2009.18.

[160] A. A. Neto and M. Vieira, "Benchmarking untrustworthiness in DBMS configurations," in *Fourth Latin-American Symposium on Dependable Computing, LADC 2009, João Pessoa, Brazil, 1-4 September 2009*, IEEE Computer Society, 2009, pp. 1–8. DOI: 10.1109/LADC.2009.23. [Online]. Available: https://doi.org/10.1109/LADC.2009.23.

[161] A. A. Neto and M. Vieira, "Untrustworthiness: A trust-based security metric," in *CRiSIS 2009, Post-Proceedings of the Fourth International Conference on Risks and Security of Internet and Systems, Toulouse, France, October 19-22, 2009*, A. A. E. Kalam, Y. Deswarte, and M. Mostafa, Eds., IEEE, 2009, pp. 123–126. DOI: 10.1109/CRISIS.2009.5411967. [Online]. Available: https://doi.org/10.1109/CRISIS.2009.5411967.

[162] N. Seixas, J. Fonseca, M. Vieira, and H. Madeira, "Looking at web security vulnerabilities from the programming language perspective: A field study," in *ISSRE 2009, 20th International Symposium on Software Reliability Engineering, Mysuru, Karnataka, India, 16-19 November 2009*, IEEE Computer Society, 2009, pp. 129–135. DOI: 10.1109/ISSRE.2009.30. [Online]. Available: https://doi.org/10.1109/ISSRE.2009.30.

[163] M. Vieira, "Student forum," in *Proceedings of the 2009 IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2009, Estoril, Lisbon, Portugal, June 29 - July 2, 2009*, IEEE Computer Society, 2009, p. 602. DOI: 10.1109/DSN.2009.5270282. [Online]. Available: https://doi.org/10.1109/DSN.2009.5270282.

[164] M. Vieira, N. Antunes, and H. Madeira, "Using web security scanners to detect vulnerabilities in web services," in *Proceedings of the 2009 IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2009, Estoril, Lisbon, Portugal, June 29 - July 2, 2009*, IEEE Computer Society, 2009, pp. 566–571. DOI: 10.1109/DSN.2009.5270294. [Online]. Available: https://doi.org/10.1109/DSN.2009.5270294.

[165] M. Vieira and H. Madeira, "From performance to dependability benchmarking: A mandatory path," in *Performance Evaluation and Benchmarking, First TPC Technology Conference, TPCTC 2009, Lyon, France, August 24-28, 2009, Revised Selected Papers*, R. O. Nambiar and M. Poess, Eds., ser. Lecture Notes in Computer Science, vol. 5895, Springer, 2009, pp. 67–83. DOI: 10.1007/978-3-642-10424-4_6. [Online]. Available: https://doi.org/10.1007/978-3-642-10424-4%5C_6.

[166] P. Almeida, M. Jorge, L. Cortesão, F. Martins, M. Vieira, and P. Gomes, "Supporting fraud analysis in mobile telecommunications using case-based reasoning," in *Advances in Case-Based Reasoning, 9th European Conference, ECCBR 2008, Trier, Germany, September 1-4, 2008. Proceedings*, K. Althoff, R. Bergmann, M. Minor, and A. Hanft, Eds., ser. Lecture Notes in Computer Science, vol. 5239, Springer, 2008, pp. 562–572. DOI: 10.1007/978-3-540-85502-6_38. [Online]. Available: https://doi.org/10.1007/978-3-540-85502-6%5C_38.

[167] R. Almeida, J. Vieira, M. Vieira, H. Madeira, and J. Bernardino, "Efficient data distribution for DWS," in *Data Warehousing and Knowledge Discovery, 10th International Conference, DaWaK 2008, Turin, Italy, September 2-5, 2008, Proceedings*, I. Song, J. Eder, and T. M. Nguyen, Eds., ser. Lecture Notes in Computer Science, vol. 5182, Springer, 2008, pp. 75–86. DOI: 10.1007/978-3-540-85836-2_8. [Online]. Available: https://doi.org/10.1007/978-3-540-85836-2%5C_8.

[168] B. Direito, A. Dourado, F. Sales, and M. Vieira, "An application for electroencephalogram mining for epileptic seizure prediction," in *Advances in Data Mining. Medical Applications, E-Commerce, Marketing, and Theoretical Aspects, 8th Industrial Conference, ICDM 2008, Leipzig, Germany, July 16-18, 2008, Proceedings*, P. Perner, Ed., ser. Lecture Notes in Computer Science, vol. 5077, Springer, 2008, pp. 87–101. DOI: 10.1007/978-3-540-70720-2_7. [Online]. Available: https://doi.org/10.1007/978-3-540-70720-2%5C_7.

[169] B. Direito, A. Dourado, M. Vieira, and F. Sales, "Combining energy and wavelet transform for epileptic seizure prediction in an advanced computational system," in *Proceedings of the 2008 International Conference*

on BioMedical Engineering and Informatics, BMEI 2008, May 28-30, 2008, Sanya, Hainan, China - Volume 2, IEEE Computer Society, 2008, pp. 380–385. DOI: 10.1109/BMEI.2008.276. [Online]. Available: https://doi.org/10.1109/BMEI.2008.276.

[170] J. Fonseca and M. Vieira, "Mapping software faults with web security vulnerabilities," in *The 38th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2008, June 24-27, 2008, Anchorage, Alaska, USA, Proceedings*, IEEE Computer Society, 2008, pp. 257–266. DOI: 10.1109/DSN.2008.4630094. [Online]. Available: https://doi.org/10.1109/DSN.2008.4630094.

[171] J. Fonseca, M. Vieira, and H. Madeira, "Online detection of malicious data access using DBMS auditing," in *Proceedings of the 2008 ACM Symposium on Applied Computing (SAC), Fortaleza, Ceara, Brazil, March 16-20, 2008*, R. L. Wainwright and H. Haddad, Eds., ACM, 2008, pp. 1013–1020. DOI: 10.1145/1363686.1363921. [Online]. Available: https://doi.org/10.1145/1363686.1363921.

[172] J. Fonseca, M. Vieira, and H. Madeira, "Training security assurance teams using vulnerability injection," in *14th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2008, 15-17 December 2008, Taipei, Taiwan*, IEEE Computer Society, 2008, pp. 297–304. DOI: 10.1109/PRDC.2008.43. [Online]. Available: https://doi.org/10.1109/PRDC.2008.43.

[173] N. Laranjeiro, S. Canelas, and M. Vieira, "Wsrbench: An on-line tool for robustness benchmarking," in *2008 IEEE International Conference on Services Computing (SCC 2008), 8-11 July 2008, Honolulu, Hawaii, USA*, IEEE Computer Society, 2008, pp. 187–194. DOI: 10.1109/SCC.2008.123. [Online]. Available: https://doi.org/10.1109/SCC.2008.123.

[174] N. Laranjeiro, M. Vieira, and H. Madeira, "Experimental robustness evaluation of JMS middleware," in *2008 IEEE International Conference on Services Computing (SCC 2008), 8-11 July 2008, Honolulu, Hawaii, USA*, IEEE Computer Society, 2008, pp. 119–126. DOI: 10.1109/SCC.2008.129. [Online]. Available: https://doi.org/10.1109/SCC.2008.129.

[175] N. Laranjeiro, M. Vieira, and H. Madeira, "Robustness validation in service-oriented architectures," in *Architecting Dependable Systems VI*, R. de Lemos, J. Fabre, C. Gacek, F. Gadducci, and M. H. ter Beek, Eds., ser. Lecture Notes in Computer Science, vol. 5835, Springer, 2008, pp. 98–123. DOI: 10.1007/978-3-642-10248-6_5. [Online]. Available: https://doi.org/10.1007/978-3-642-10248-6%5C_5.

[176] N. Laranjeiro, M. Vieira, and H. Madeira, "Timing failures detection in web services," in *Proceedings of the 3rd IEEE Asia-Pacific Services Computing Conference, APSCC 2008, Yilan, Taiwan, 9-12 December 2008*, IEEE Computer Society, 2008, pp. 554–559. DOI: 10.1109/APSCC.

2008.236. [Online]. Available: https://doi.org/10.1109/APSCC.2008.236.

[177] N. Mendes, A. A. Neto, J. Durães, M. Vieira, and H. Madeira, "Assessing and comparing security of web servers," in *14th IEEE Pacific Rim International Symposium on Dependable Computing, PRDC 2008, 15-17 December 2008, Taipei, Taiwan*, IEEE Computer Society, 2008, pp. 313–322. DOI: 10.1109/PRDC.2008.45. [Online]. Available: https://doi.org/10.1109/PRDC.2008.45.

[178] A. A. Neto and M. Vieira, "Towards assessing the security of DBMS configurations," in *The 38th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2008, June 24-27, 2008, Anchorage, Alaska, USA, Proceedings*, IEEE Computer Society, 2008, pp. 90–95. DOI: 10.1109/DSN.2008.4630074. [Online]. Available: https://doi.org/10.1109/DSN.2008.4630074.

[179] J. Vieira, M. Vieira, M. Costa, and H. Madeira, "RAIN: always on data warehousing," in *Database Systems for Advanced Applications, 13th International Conference, DASFAA 2008, New Delhi, India, March 19-21, 2008. Proceedings*, J. R. Haritsa, K. Ramamohanarao, and V. Pudi, Eds., ser. Lecture Notes in Computer Science, vol. 4947, Springer, 2008, pp. 678–681. DOI: 10.1007/978-3-540-78568-2_61. [Online]. Available: https://doi.org/10.1007/978-3-540-78568-2%5C_61.

[180] J. Vieira, M. Vieira, M. Costa, and H. Madeira, "Redundant array of inexpensive nodes for DWS," in *Database Systems for Advanced Applications, 13th International Conference, DASFAA 2008, New Delhi, India, March 19-21, 2008. Proceedings*, J. R. Haritsa, K. Ramamohanarao, and V. Pudi, Eds., ser. Lecture Notes in Computer Science, vol. 4947, Springer, 2008, pp. 580–587. DOI: 10.1007/978-3-540-78568-2_49. [Online]. Available: https://doi.org/10.1007/978-3-540-78568-2%5C_49.

[181] J. Fonseca, M. Vieira, and H. Madeira, "Detecting malicious SQL," in *Trust, Privacy and Security in Digital Business, 4th International Conference, TrustBus 2007, Regensburg, Germany, September 3-7, 2007, Proceedings*, C. Lambrinoudakis, G. Pernul, and A. M. Tjoa, Eds., ser. Lecture Notes in Computer Science, vol. 4657, Springer, 2007, pp. 259–268. DOI: 10.1007/978-3-540-74409-2_28. [Online]. Available: https://doi.org/10.1007/978-3-540-74409-2%5C_28.

[182] J. Fonseca, M. Vieira, and H. Madeira, "Integrated intrusion detection in databases," in *Dependable Computing, Third Latin-American Symposium, LADC 2007, Morella, Mexico, September 26-28, 2007, Proceedings*, A. Bondavalli, F. V. Brasileiro, and S. Rajsbaum, Eds., ser. Lecture Notes in Computer Science, vol. 4746, Springer, 2007, pp. 198–211. DOI: 10.1007/978-3-540-75294-3_15. [Online]. Available: https://doi.org/10.1007/978-3-540-75294-3%5C_15.

[183] J. Fonseca, M. Vieira, and H. Madeira, "Testing and comparing web vulnerability scanning tools for SQL injection and XSS attacks," in *13th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2007), 17-19 December, 2007, Melbourne, Victoria, Australia*, IEEE Computer Society, 2007, pp. 365–372. DOI: 10.1109/PRDC.2007.55. [Online]. Available: https://doi.org/10.1109/PRDC.2007.55.

[184] N. Laranjeiro and M. Vieira, "Towards fault tolerance in web services compositions," in *Proceedings of the 2007 Workshop on Engineering Fault Tolerant Systems, EFTS 2007, Dubrovnik, Croatia, September 4, 2007*, N. Guelfi, H. Muccini, P. Pelliccione, and A. B. Romanovsky, Eds., ACM, 2007, p. 2. DOI: 10.1145/1316550.1316552. [Online]. Available: https://doi.org/10.1145/1316550.1316552.

[185] M. Vieira, A. C. Costa, and H. Madeira, "Towards timely ACID transactions in DBMS," in *Advances in Databases: Concepts, Systems and Applications, 12th International Conference on Database Systems for Advanced Applications, DASFAA 2007, Bangkok, Thailand, April 9-12, 2007, Proceedings*, K. Ramamohanarao, P. R. Krishna, M. K. Mohania, and E. Nantajeewarawat, Eds., ser. Lecture Notes in Computer Science, vol. 4443, Springer, 2007, pp. 262–274. DOI: 10.1007/978-3-540-71703-4_24. [Online]. Available: https://doi.org/10.1007/978-3-540-71703-4%5C_24.

[186] M. Vieira and N. Laranjeiro, "Comparing web services performance and recovery in the presence of faults," in *2007 IEEE International Conference on Web Services (ICWS 2007), July 9-13, 2007, Salt Lake City, Utah, USA*, IEEE Computer Society, 2007, pp. 623–630. DOI: 10.1109/ICWS.2007.63. [Online]. Available: https://doi.org/10.1109/ICWS.2007.63.

[187] M. Vieira, N. Laranjeiro, and H. Madeira, "Assessing robustness of web-services infrastructures," in *The 37th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2007, 25-28 June 2007, Edinburgh, UK, Proceedings*, IEEE Computer Society, 2007, pp. 131–136. DOI: 10.1109/DSN.2007.16. [Online]. Available: https://doi.org/10.1109/DSN.2007.16.

[188] M. Vieira, N. Laranjeiro, and H. Madeira, "Benchmarking the robustness of web services," in *13th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2007), 17-19 December, 2007, Melbourne, Victoria, Australia*, IEEE Computer Society, 2007, pp. 322–329. DOI: 10.1109/PRDC.2007.56. [Online]. Available: https://doi.org/10.1109/PRDC.2007.56.

[189] M. Vieira and H. Madeira, "Do you know... how to analyze and share results from dependability evaluation experiments?" In *Dependable Computing, Third Latin-American Symposium, LADC 2007, Morella, Mexico, September 26-28, 2007, Proceedings*, A. Bondavalli, F. V. Brasileiro, and S. Rajsbaum, Eds., ser. Lecture Notes in Computer Science, vol. 4746,

Springer, 2007, pp. 231–232. DOI: 10.1007/978-3-540-75294-3_17. [Online]. Available: https://doi.org/10.1007/978-3-540-75294-3%5C_17.

[190] J. Fonseca, M. Vieira, and H. Madeira, "Monitoring database application behavior for intrusion detection," in *12th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2006), 18-20 December, 2006, University of California, Riverside, USA*, IEEE Computer Society, 2006, pp. 383–386. DOI: 10.1109/PRDC.2006.46. [Online]. Available: https://doi.org/10.1109/PRDC.2006.46.

[191] M. Vieira, A. C. Costa, and H. Madeira, "Towards timely ACID transactions in DBMS," in *12th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2006), 18-20 December, 2006, University of California, Riverside, USA*, IEEE Computer Society, 2006, pp. 381–382. DOI: 10.1109/PRDC.2006.63. [Online]. Available: https://doi.org/10.1109/PRDC.2006.63.

[192] G. Pintér, H. Madeira, M. Vieira, I. Majzik, and A. Pataricza, "A data mining approach to identify key factors in dependability experiments," in *Dependable Computing - EDCC-5, 5th European Dependable Computing Conference, Budapest, Hungary, April 20-22, 2005, Proceedings*, M. D. Cin, M. Kaâniche, and A. Pataricza, Eds., ser. Lecture Notes in Computer Science, vol. 3463, Springer, 2005, pp. 263–280. DOI: 10.1007/11408901_20. [Online]. Available: https://doi.org/10.1007/11408901%5C_20.

[193] M. Vieira and H. Madeira, "Detection of malicious transactions in DBMS," in *11th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2005), 12-14 December, 2005, Changsha, Hunan, China*, IEEE Computer Society, 2005, pp. 350–357. DOI: 10.1109/PRDC.2005.31. [Online]. Available: https://doi.org/10.1109/PRDC.2005.31.

[194] M. Vieira and H. Madeira, "Towards a security benchmark for database management systems," in *2005 International Conference on Dependable Systems and Networks (DSN 2005), 28 June - 1 July 2005, Yokohama, Japan, Proceedings*, IEEE Computer Society, 2005, pp. 592–601. DOI: 10.1109/DSN.2005.93. [Online]. Available: https://doi.org/10.1109/DSN.2005.93.

[195] J. Durães, M. Vieira, and H. Madeira, "Dependability benchmarking of web-servers," in *Computer Safety, Reliability, and Security, 23rd International Conference, SAFECOMP 2004, Potsdam, Germany, September 21-24, 2004, Proceedings*, M. Heisel, P. Liggesmeyer, and S. Wittmann, Eds., ser. Lecture Notes in Computer Science, vol. 3219, Springer, 2004, pp. 297–310. DOI: 10.1007/978-3-540-30138-7_25. [Online]. Available: https://doi.org/10.1007/978-3-540-30138-7%5C_25.

[196] M. Vieira and H. Madeira, "Portable faultloads based on operator faults for DBMS dependability benchmarking," in *28th International Computer Software and Applications Conference (COMPSAC 2004), Design and Assessment of Trustworthy Software-Based Systems, 27-30 September 2004, Hong Kong, China, Proceedings*, IEEE Computer Society, 2004, pp. 202–209. DOI: 10.1109/CMPSAC.2004.1342828. [Online]. Available: https://doi.org/10.1109/CMPSAC.2004.1342828.

[197] P. Costa, M. Vieira, H. Madeira, and J. G. Silva, "Plug and play fault injector for dependability benchmarking," in *Dependable Computing, First Latin-American Symposium, LADC 2003, Sao Paulo, Brazil, October 21-24, 2003, Proceedings*, R. de Lemos, T. S. Weber, and J. B. C. Jr., Eds., ser. Lecture Notes in Computer Science, vol. 2847, Springer, 2003, pp. 8–22. DOI: 10.1007/978-3-540-45214-0_4. [Online]. Available: https://doi.org/10.1007/978-3-540-45214-0%5C_4.

[198] H. Madeira, J. P. Costa, and M. Vieira, "The OLAP and data warehousing approaches for analysis and sharing of results from dependability evaluation experiments," in *2003 International Conference on Dependable Systems and Networks (DSN 2003), 22-25 June 2003, San Francisco, CA, USA, Proceedings*, IEEE Computer Society, 2003, pp. 86–91. DOI: 10.1109/DSN.2003.1209920. [Online]. Available: https://doi.org/10.1109/DSN.2003.1209920.

[199] H. Madeira, J. Durães, and M. Vieira, "Emulation of software faults: Representativeness and usefulness," in *Dependable Computing, First Latin-American Symposium, LADC 2003, Sao Paulo, Brazil, October 21-24, 2003, Proceedings*, R. de Lemos, T. S. Weber, and J. B. C. Jr., Eds., ser. Lecture Notes in Computer Science, vol. 2847, Springer, 2003, pp. 137–159. DOI: 10.1007/978-3-540-45214-0_13. [Online]. Available: https://doi.org/10.1007/978-3-540-45214-0%5C_13.

[200] M. Vieira and H. Madeira, "A dependability benchmark for OLTP application environments," in *Proceedings of 29th International Conference on Very Large Data Bases, VLDB 2003, Berlin, Germany, September 9-12, 2003*, J. C. Freytag, P. C. Lockemann, S. Abiteboul, M. J. Carey, P. G. Selinger, and A. Heuer, Eds., Morgan Kaufmann, 2003, pp. 742–753. DOI: 10.1016/B978-012722442-8/50071-9. [Online]. Available: http://www.vldb.org/conf/2003/papers/S22P03.pdf.

[201] M. Vieira and H. Madeira, "Benchmarking the dependability of different OLTP systems," in *2003 International Conference on Dependable Systems and Networks (DSN 2003), 22-25 June 2003, San Francisco, CA, USA, Proceedings*, IEEE Computer Society, 2003, pp. 305–310. DOI: 10.1109/DSN.2003.1209940. [Online]. Available: https://doi.org/10.1109/DSN.2003.1209940.

[202] M. Vieira and H. Madeira, "Definition of faultloads based on operator faults for DMBS recovery benchmarking," in *9th Pacific Rim International Symposium on Dependable Computing (PRDC 2002), 16-18*

December 2002, Tsukuba-City, Ibarski, Japan, IEEE Computer Society, 2002, pp. 265–274. DOI: 10.1109/PRDC.2002.1185646. [Online]. Available: https://doi.org/10.1109/PRDC.2002.1185646.

[203] M. Vieira and H. Madeira, "Recovery and performance balance of a COTS DBMS in the presence of operator faults," in *2002 International Conference on Dependable Systems and Networks (DSN 2002), 23-26 June 2002, Bethesda, MD, USA, Proceedings*, IEEE Computer Society, 2002, pp. 615–626. DOI: 10.1109/DSN.2002.1029007. [Online]. Available: https://doi.org/10.1109/DSN.2002.1029007.

[204] D. Costa, T. Rilho, M. Vieira, and H. Madeira, "ESFFI - A novel technique for the emulation of coftware faults in COTS components," in *8th IEEE International Conference on Engineering of Computer-Based Systems (ECBS 2001), 17-20 April 2001, Washington, DC, USA*, IEEE Computer Society, 2001, pp. 197–204. DOI: 10.1109/ECBS.2001.922422. [Online]. Available: https://doi.org/10.1109/ECBS.2001.922422.

[205] H. Madeira, D. Costa, and M. Vieira, "On the emulation of software faults by software fault injection," in *2000 International Conference on Dependable Systems and Networks (DSN 2000) (formerly FTCS-30 and DCCA-8), 25-28 June 2000, New York, NY, USA*, IEEE Computer Society, 2000, pp. 417–426. DOI: 10.1109/ICDSN.2000.857571. [Online]. Available: https://doi.org/10.1109/ICDSN.2000.857571.

Book Chapters

[1] R. Barbosa, J. Karlsson, H. Madeira, and M. Vieira, "Fault injection," in *Resilience Assessment and Evaluation of Computing Systems*, K. Wolter, A. Avritzer, M. Vieira, and A. P. A. van Moorsel, Eds., Springer, 2012, pp. 263–281. DOI: 10.1007/978-3-642-29032-9_13. [Online]. Available: https://doi.org/10.1007/978-3-642-29032-9%5C_13.

[2] J. Durães, J. Fonseca, H. Madeira, and M. Vieira, "Field studies on resilience: Measurements and repositories," in *Resilience Assessment and Evaluation of Computing Systems*, K. Wolter, A. Avritzer, M. Vieira, and A. P. A. van Moorsel, Eds., Springer, 2012, pp. 213–237. DOI: 10.1007/978-3-642-29032-9_11. [Online]. Available: https://doi.org/10.1007/978-3-642-29032-9%5C_11.

[3] Z. Micskei, H. Madeira, A. Avritzer, I. Majzik, M. Vieira, and N. Antunes, "Robustness testing techniques and tools," in *Resilience Assessment and Evaluation of Computing Systems*, K. Wolter, A. Avritzer, M. Vieira, and A. P. A. van Moorsel, Eds., Springer, 2012, pp. 323–339. DOI: 10.1007/978-3-642-29032-9_16. [Online]. Available: https://doi.org/10.1007/978-3-642-29032-9%5C_16.

[4] M. Vieira, H. Madeira, K. Sachs, and S. Kounev, "Resilience benchmarking," in *Resilience Assessment and Evaluation of Computing Systems*, K. Wolter, A. Avritzer, M. Vieira, and A. P. A. van Moorsel, Eds., Springer, 2012, pp. 283–301. DOI: 10.1007/978-3-642-29032-9_14. [Online]. Available: https://doi.org/10.1007/978-3-642-29032-9%5C_14.

Books

[1] K. Wolter, A. Avritzer, M. Vieira, and A. P. A. van Moorsel, Eds., *Resilience Assessment and Evaluation of Computing Systems*. Springer, 2012, ISBN: 978-3-642-29031-2. DOI: 10.1007/978-3-642-29032-9. [Online]. Available: https://doi.org/10.1007/978-3-642-29032-9.

[2] M. Vieira, *Dependability Benchmarking for OLTP Systems - A Mandatory Path*. LAP Lambert Academic Publishing, 2010, ISBN: 978-3-8383-0702-2.