

Curriculum Vitae di Mariano Ceccato

Informazioni personali:

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Mariano Ceccato è professore associato nel Dipartimento di Informatica dell'Università di Verona. Fino al 2019 era ricercatore a tempo indeterminato nell'unità di ricerca Security & Trust della Fondazione Bruno Kessler di Trento, e fino al 2018 nell'unità di ricerca di Software Engineering. È stato responsabile scientifico di progetti di ricerca con bando competitivo pubblico, dall'Unione Europea (FP7, EIT Digital e H2020) e dal Ministero Italiano della ricerca (Prin). Inoltre, è stato responsabile scientifico di vari contratti di ricerca commissionati da aziende.

Carrira accademica:

- 2023-ora: professore associato, Dipartimento di Informatica, Università di Verona.
- 2020-2022: ricercatore senior (tenure track), Dipartimento di Informatica, Università di Verona.
- 2010-2019: ricercatore a tempo indeterminato (tenured) di terzo livello, equivalente a ricercatore universitario. Fondazione Bruno Kessler, Trento.
- 2008-2010: ricercatore a tempo determinato (tenure track) di terzo livello, equivalente a ricercatore universitario. Fondazione Bruno Kessler, Trento (già Istituto Trentino di Cultura).
- 2007: post-doc, Istituto Trentino di Cultura, Trento.

Abilitazione scientifica nazionale:

- 2023: Abilitazione scientifica nazionale a Professore Ordinario in Informatica (settore 1/B1 INF-01) e Ingegneria Informatica (settore 9/H1 ING-INF/05).
- 2017: Abilitazione scientifica nazionale a Professore Associato in Informatica (settore 1/B1 INF-01).
- 2013: Abilitazione scientifica nazionale a Professore Associato in Ingegneria Informatica (settore 9/H1 ING-INF/05).
- 2003: Abilitazione alla professione di Ingegnere.

Formazione:

- 2006: Dottorato in Informatica e Telecomunicazioni, Università di Trento 15 dicembre 2006. Titolo della tesi *"Migrating Object Oriented Code to Aspect Oriented Programming"*. Advisor: Professor Paolo Tonella.
- 2003: Laurea Magistrate in Ingegneria Informatica, Università di Padova 11 marzo 2003. Advisor: Professor Sergio Congiu.

ATTIVITA' DIDATTICA:

Collegio dei docenti di dottorato:

- 2020-ora: Membro del collegio dei docenti del Dottorato in Informatica, Dipartimento di Informatica Università di Verona;
- 2016-2020: Membro del collegio dei docenti del Dottorato in Informatica e Ingegneria dei Sistemi, Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi, Università di Genova.

Docente in scuole e corsi di dottorato:

- 2022-23 (due edizioni): ISE School. International School on Software Engineering. Bolzano <https://seschool-series.github.io/2022/speakers.html#mariano>
- 2022-24 (tre edizioni): "Automated Software Testing" Università di Verona
- 2019: "3rd International Genoa Software Engineering PhD School on Automated Functional and Security Testing of Web and Mobile Applications". Università di Genova. Maggio 2019. <http://sepl.dibris.unige.it/GaSES2019/>
- 2018: "14TH Tarot Summer School 2018 on Software Testing, Verification & Validation", University College London, London, Inghilterra. Luglio 2018. <https://wp.cs.ucl.ac.uk/tarot2018/>

- 2017: "Automated Software Testing", Università di Genova. Maggio 2017.
<https://sites.google.com/site/automatedswtesting>

Docente in corsi della laurea specialistica:

- Università di Verona:
 - 2024-ora: "Progettazione e Validazione dei Sistemi Software", Laurea Specialistica in Ingegneria e Scienze Informatiche (48 ore)
 - 2024-ora: "Ingegneria dei Requisiti", Laurea Specialistica in Ingegneria e Scienze Informatiche (48 ore)
 - 2021-2023: "Fondamenti di Software Engineering", Laurea Specialistica in Ingegneria e Scienze Informatiche (48 ore)
 - 2021-2023: "Cyber Security for IoT", Laurea Specialistica in Computer Engineering for Robotics and Smart Industry (48 ore);
 - 2021-ora: "Data Security and Privacy", Laurea Specialistica in Data Science (8 ore);
 - 2020: Fondamenti di Software Engineering", Laurea Specialistica in Ingegneria e Scienze Informatiche (52 ore);
 - 2020: Laurea Specialistica in Computer Engineering for Robotics and Smart Industry (52 ore);
 - 2020: "Data Security and Privacy", Laurea Specialistica in Data Science (20h);
- Università di Genova:
 - 2020: "Functional and Security Testing Techniques" Laurea Magistrale in Informatica (20h);
- Università di Trento:
 - 2012-2019: "Security Testing", Laurea Magistrale in Informatica (48h);
 - 2009-2011: "Software Analysis and Testing", Laurea Magistrale in Informatica;
 - 2004-2008: "Laboratory of Software Analysis and Testing" Laurea Magistrale in Informatica (49h);
- Università di Bolzano:
 - 2011: "Empirical Software Measurements", Laurea Magistrale in Informatica (24h);

Relatore di tesi di Dottorato:

- 2024-ora: Sofia Mari. Titolo provvisorio della tesi: *"Automated Testing REST APIs based on Deep Learning"*. Università di Verona.
- 2020-2023: Davide Corradini. Titolo della tesi: *"Automated Generation of Functional and Security Test Cases for REST APIs"*. Università di Verona.
- 2019-ora: Andrea Romdhana. Titolo della tesi: *"Deep Reinforcement Learning Application Testing"*. Università di Genova.
- 2014-2019: Biniam Fisseha Demissie. Titolo della tesi: *"Security Testing of Permission Re-delegation Vulnerabilities in Android Applications"*. Università di Trento.
- 2010-2013: Andrea Avancini. Titolo della tesi: *"Security Testing of Web and Smartphone Applications"*. Università di Trento.

Relatore di tesi di laurea Magistrale:

- 2024
 - Luigi Hu: "Confronto sperimentale tra tool di ispezione automatizzata della qualità del codice per Java"
 - Robert Timofte: "Iniezione Automatizzata di Vulnerabilità Mass Assignment in REST API"
 - Federico Graziola: "Potenzialità e sfide nell'analisi formale di protocolli per l'identità digitale con Tamarin"
 - Giacomo Gatto: "Porting in Ambiente Cloud di uno strumento Desktop per il Testing Automatizzato di REST API: Progettazione e Implementazione"
 - Ferdinando Santoro: "A systematic literature review of vulnerabilities in Ethereum smart contracts: methodology, categorization, ontology and implementation of a visualization tool"
 - Sofia Mari: "A Systematic Literature Survey About Defects in Ethereum Smart Contracts: Methodology, Classification, Ontology and Visualization"
 - Michele Perlotto: "Validazione della semantica CRUD delle REST API tramite testing automatico"
 - Marco Massagrande: "Traduzione di Requisiti Funzionali in Test di Accettazione per la Validazione Automatizzata di una Migrazione Software"
 - Elia Confente: "Sviluppo di un protocollo sperimentale per la validazione di PUF di tipo SRAM su commodity hardware economico"
 - Gabriele Nicolosi: "Integrazione di Sistemi Cloud: Sviluppo e Validazione di un Connettore Custom tra Power Apps e Snowflake"

- 2023
 - Leonardo Zuanazzi: "Metodologia e Supporto Automatizzato al Model-Driven Engineering applicato all'Ingegneria Ambientale Idrologica"
 - Andrea Rossetti: "Classificazione automatizzata e black-box della semantica di operazioni di REST API"
 - Francesco Tubini: "Reverse Engineering del Layout di una Rete di Distribuzione di Energia Elettrica: uno Strumento Automatizzato per lo Standard IEC-61850"
 - Muhammad Anas Uddin: "A Comparative Empirical Comparison of MQTT Broker's Performance"
 - Matteo Grella: "Generazione Automatizzata di Casi di Test per Vulnerabilità Mass Assignment su REST API"
 - Sara Beschi: "Validazione di un Motore di Business Process Tramite Generazione Automatica di Scenari di Test End-to-End"
 - Matteo Cavaliere: "A Black-Box Approach for Automated Inference and Refinement of REST API Specifications"
 - Cristiano Di Bari: "A framework for securing low-cost and legacy IoT devices with Physical Unclonable Functions"
 - Francesco Ceconello: "Verifica, monitoraggio e miglioramento della sicurezza informatica tramite Purple Team all'interno del framework 20 CIS"
 - Alessandro Righi: "Automazione di test di accettazione per dispositivi IoT embedded integrati nel cloud"
 - Montolli Zeno: "Reinforcement Learning per la generazione automatica di casi di test per REST API"
- 2022
 - Nicolò Lutteri: "Automatic black-box test case generation for access control vulnerabilities in RESTful APIs"
 - Enrico Guerra: "Formal verification and risk assessment of an implementation of the OPC-UA Protocol"
 - Fabio Bissoli: "Deep Learning per Network Intrusion Detection: CNN, Autoencoder e LSTM"
 - Paolo Graziani: "Classificazione Automatizzata di Documenti Aziendali Tramite Machine Learning"
- 2021:
 - Amedeo Zampieri: "Empirical Comparison among Automated Approaches for Black-box Testing of RESTful APIs"
- 2020:
 - Valentina Odorizzi: "Introducing Automated Security Testing in the Context of Corporate Agile Development Process"
 - Filippo Contro: "Computing an Accurate Control-flow Graph from Ethereum Bytecode"
 - Michael Dallago: "Resttestgen: Automated Black-Box Testing of Restful APIs"
- 2019:
 - Leonidas Vasileiadis: "Remote Runtime Detection of Tampering and of Dynamic Analysis Attempts for Android Apps"
 - Luigi Coniglio: "Combining Program Synthesis and Symbolic Execution to Deobfuscate Binary Code"
 - Davide Corradini: "In-Vivo Testing of Android Apps: Implementation and Empirical Evaluation"
 - Davide Pizzolotto: "Fully Automatic Transformation of Selected Portions of Java Bytecode to C Source Code"
- 2018:
 - Roberto Fellin: "Obfuscation of Java Bytecode with Xor Masking and Opaque Constants based on K-clique"
 - Emanuele Viglianisi: "A Federated Society of Bots for Smart Contract Testing"
 - Luca Gasparetto: "Cyber Security in the API Economy: Vulnerability Detection in Android Apps"
 - Andrea Giarrusso: "Experimental investigation of the runtime performance in cloud computing integration: an industrial case study"
- 2016: Alessandro Valentini: "An Experimental Study on Run-Time Overhead Introduced by Data Obfuscation Transformations"
- 2014:
 - Davide Ghio: "Security Testing of Communication Mechanisms among Android Applications"
 - Biniam Fisseha Demissie: "Implementation and Assessment of Data Obfuscation for C/C++ Code Based on Residue Number Coding"
 - Yosief Weldezhghi Frezghi: "Code Obfuscation and Clustering Heuristic to Prevent Code Tampering".

- 2009: Andrea Avancini: *"Migrazione automatica di sistemi legacy: un caso di studio"*

Relatore di tesi di laurea:

- 2022: Alessandro Marconcini: "Progettazione e prototipazione di un servizio REST di pubblica utilità"
- 2021: Mattia Santi: "Studio e Pratica su Vulnerabilità di API REST"
- 2017: Andrea Arrighi: *"NATAN - Offuscazione di bytecode Java tramite traduzione automatica verso codice C di invocazioni a metodo"*

RESPONSABILITA' SCIENTIFICHE:

Mobilità internazionale:

- 2015: Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg. Collaborazione con Professor Lionel Briand (3 month).
- 2005: King's College London. Inghilterra. Collaborazione con Professor Mark Harman (3 month).

Finanziamenti di ricerca competitivi:

- 2023-2026: Responsabile scientifico del progetto "NeuroPlus: NEUROmorphic energy-efficient secure accelerators based on Phase change materials aUgmented siLicon photonicS" ammesso a finanziamento come progetto RIA all'interno del programma Horizon EU, Ultra-low-power, secure processors for edge computing. Durata 48 mesi. **Budget di progetto: 8.3M/€.** Mio budget: 510k/€.
- 2022: Contributo a task del progetto "iNest: Interconnected Nord-Est Innovation Ecosystem" Finanziato come Ecosistema dell'Innovazione dal Ministero dell'Università e della Ricerca, all'interno del Piano Nazionale di Ripresa e Resilienza (PNRR) finanziato dall'Unione Europea, NextGenerationEU. Durata 36 mesi.
- 2023-2025: Responsabile scientifico del progetto "Smartitude: Automated Testing and Security Assessment of Smart Contracts" finanziato dall'Unione Europea nel contesto di NextGenerationEU, finanziato dal MUR all'interno del programma PRIN 2022 (Fondo per il Programma Nazionale di Ricerca e Progetti di Rilevante Interesse Nazionale PRIN). Durata 24 mesi. **Budget di progetto: 298k/€.** Mio budget: 102k/€.
- 2022-2024: Responsabile scientifico del progetto *"Integrazione di servizi rivolti al cittadino per facilitare la corretta raccolta differenziata dei rifiuti urbani"*. Finanziato dal Ministero dell'Università e della Ricerca, all'interno del programma PON "RICERCA E INNOVAZIONE". **Project budget: 156k/€**
- 2019: Responsabile scientifico del progetto *"Teichos - Technical Environment for Intelligent Cyber Operational Security"*. Innovation Action, assegnato dalla Comunità Europea all'interno di EIT Digital. **Budget progetto: 972k/€.** Mio budget: 330k/€. Mio finanziamento: 247k/€.
- 2019: Responsabile scientifico del progetto *"API-Assistant 2: Automated Security Assessment of 3rd party apps for the API economy"*. Innovation Action, assegnato dalla Comunità Europea all'interno di EIT Digital. **Budget progetto: 1115k/€.** Mio budget: 360k/€. Mio finanziamento: 236k/€.
- 2018-2019: Responsabile scientifico del progetto PRIN *"GAUSS: Governing Adaptive and Unplanned Systems of Systems"*. Finanziato dal Ministero Italiano della Ricerca (contratto 2015KWREMX). **Budget progetto: 666k/€.** Mio budget: 81 k/€. Mio finanziamento: 57k/€.
- 2018: Responsabile scientifico del progetto *"API-Assistant: Automated Security Assessment of 3rd party apps for the API economy"*. Innovation Action, assegnato dalla Comunità Europea all'interno di EIT Digital. **Budget progetto: 1100k/€.** Mio budget: 477k/€. Mio finanziamento: 370k/€.
- 2013-2016: Responsabile scientifico del progetto STREP *"ASPIRE: Advanced Software Protection: Integration, Research and Exploitation"*, assegnato dalla Comunità Europea all'interno Settimo Programma Quadro (FP7/2007-2013) contratto numero 609734. **Budget progetto: 4509k/€.** Mio budget: 495k/€. Mio finanziamento: 373k/€.

Contratti di ricerca commissionati da aziende:

- 2023 Responsabile scientifico del progetto "Organizzazione di eventi divulgativi rivolti alle PMI del Veneto e realizzazione di contenuti digitali" finanziato da Unione regionale delle camere di commercio industria artigianato e agricoltura del Veneto. **Budget progetto: 7k/€.**
- 2023 Responsabile scientifico del progetto "Testing Automatizzato di REST API" finanziato da Muscope Cybersecurity S.r.l **Budget progetto: 24k/€.**
- 2023: Responsabile scientifico del progetto "Machine learning per il testing automatizzato di REST API" finanziato da Equixely Srl. **Budget progetto: 23k/€.**
- 2022: Responsabile scientifico del progetto "Raccolta dei requisiti per un framework di ingegneria ambientale di modellazione dei processi fisici alla base del ciclo dell'acqua" finanziato da MobyGIS. **Budget progetto: 3k/€.**

- 2021: Responsabile scientifico del progetto “Assistenza nella verifica dei requisiti hardware e software da capitolato d'appalto nell'acquisizione da parte di AMIA Verona SpA di una piattaforma informatica di gestione integrata dei processi aziendali legati al servizio di gestione dei rifiuti urbani” finanziato da AMIA Verona. **Budget progetto: 16k/€.**

Invited talks:

- 2023: Presentazione su invito: 13th Workshop Computer Science Research Meets Business, titolo della presentazione “Security Testing of Web APIs”. Univeristy of Bolzen/Bolzano.
- 2021: Keynote a Intuittestbeds 2021: International Workshop on User Interface Test Automation and Testing Techniques for Event Based Software.
- 2018: “AnFlo: Detecting Anomalous Sensitive Information Flows in Android Apps”. Università di Udine.
- 2015: “ASPIRE Advanced Software Protection: Integration, Research and Exploitation”. University of Luxembourg.
- 2014: “A Study on the Effect of Code Obfuscation: Quality of code and Efficiency of attacks”. University of Luxembourg.
- 2012: “Security testing of fast time-to-market code”. Linkoping University, Svezia.
- 2012: “A search based approach for security testing”. 18th CREST Open Workshop Managing and Optimising Multiplicity Computing, Londra, Inghilterra.
- 2011: “Towards security testing with taint analysis and genetic algorithms”. University of East London, Inghilterra.

Awards:

- 2022: **Best Research paper** per l'articolo “IFRIT: Focused Testing through Deep Reinforcement Learning” presentato a 15th IEEE International Conference on Software Testing, Verification and Validation (ICST 2022)
- 2020: **Best Paper award** per l'articolo “Best Paper award for the paper “RestTestGen: Automated black-box testing of RESTful APIs”, presentato a 13th IEEE International Conference on Software Testing, Validation and Verification (ICST 2020)
- 2017: **Best Paper award** per l'articolo “How professional hackers understand protected code while performing attack tasks”, presentato a 25th International Conference on Program Comprehension (ICPC 2017)
- 2017: **ACM distinguished paper award** per l'articolo “How professional hackers understand protected code while performing attack tasks”, presentato a 25th International Conference on Program Comprehension (ICPC 2017)
- 2016: **ACM distinguished paper award** per l'articolo “Sofia: An automated security oracle for black-box testing of SQL-injection vulnerabilities” presentato a 31st IEEE/ACM International Conference on Automated Software Engineering (ASE 2016)

Spinoff and trasferimento tecnologico:

Fondatore e CTO (2017-2019) di 2Aspire, startup con l'obiettivo di implementare e commercializzare i risultati del Progetto di ricerca Aspire EU-FP7.

- 2018: Riconoscimento come spin-off ufficiale da parte del consiglio di amministrazione di FBK
- 2017: Selezione dal programma di accelerazione Tim-Wcap di Telecom Italia. Contributo in cash €10k
- 2016: Il business plan vince la competizione D2T StartCup (categoria IT) promosso da Trentino Sviluppo. Premio cash €15k

SERVIZIO ALLA COMUNITA' DI RICERCA:

Organizzazione di conferenze internazionali:

- Steering Board di IEEE International Working Conference on Source Code Analysis and Manipulation
- General chair di 22nd IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2022). Cyprus. (89 partecipanti).
- Most influential paper co-chair di 22nd IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2022). Cyprus. (89 partecipanti)
- Program chair: PhD Forum, Itasec20: PhD Forum, colocated within the Italian Conference on Cybersecurity, 2020, Ancona.
- Program chair: 12th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2012). Riva del Garda. (62 partecipanti).

- Local arrangement chair: 28th IEEE International Conference on Software Maintenance (ICSM 2012). Riva del Garda. (141 partecipanti).
- Local arrangement chair: International Symposium on Software Testing and Analysis (ISSTA 2010). Trento. (95 partecipanti)

Organizzazione di workshop scientifici internazionali:

- MAOS 2009: Workshop on Maintenance of Aspect Oriented Systems. 2009, Fraunhofer IESE, Kaiserslautern, Germania.
- RE-TRUST 2009: Second International Workshop on Remote Entrusting. 2009, Riva del Garda.
- RE-TRUST 2008: First International Workshop on Remote Entrusting. 2008, Trento.
- EWAS'06: 3rd European Workshop on Aspects in Software. 2006, Università di Twente, Enschede, The Netherlands.
- LATE workshop 2006: Linking Aspect Technology and Evolution workshop tenutosi contestualmente con 5th Aspect-Oriented Software Development Conference (AOSD 2006). 2006, Bonn, Germania.
- LATE workshop 2005: Linking Aspect Technology and Evolution tenutosi contestualmente con 4th Aspect-Oriented Software Development Conference (AOSD 2005). 2005, Chicago, USA.

Membro del comitato di programma di conferenze internazionali:

- 2025: ACM SIGSOFT International Symposium on Software Testing and Analysis
- 2011 - 2024 (4 edizioni): IEEE International Conference on Software Maintenance and Evolution (ICSME).
- 2017 - 2024 (9 edizioni): IEEE International Conference on Software Testing, Verification and Validation (ICST) research, testing tools, tool demo tracks.
- 2020 - 2023 (4 edizioni): IEEE/ACM International Conference on Mobile Software Engineering and Systems (MobileSoft)
- 2010 - 2024 (10 edizioni): IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM)
- 2022: ESORICS European Symposium on Research in Computer Security
- 2020: IEEE/ACM International Conference on Mobile Software Engineering and Systems (MobileSoft) Vision Track
- 2013 - 2022 (6 edizioni): International Conference on Program Comprehension (ICPC).
- 2014 - 2018 (2 edizioni): Conference on Software Maintenance, Reengineering and Reverse Engineering (Software Evolution Week) (CSMR-WCRE/SANER).
- 2010 - 2014 (5 edizioni): Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP).
- 2010 - 2013 (4 edizioni): IEEE Working Conference on Reverse Engineering, (WCRE).
- 2012: Genetic and Evolutionary Computation Conference (GECCO).
- 2010: International Conferences on Mathematical Methods, Models and Architectures for Computer Network Security. (MMM-ACNS).
- SNDS 2010: Special Session "Security in Networked and Distributed Systems" in 18th Euromicro International Conference on Parallel, Distributed and network-based Processing (PDP)

Membro del comitato di programma di workshop internazionali:

- 2025: SECUTE International Workshop on Security Testing for Complex Software Systems
- 2021 - 2024 (3 edizioni): CheckMATE Workshop on Research on offensive and defensive techniques in the context of Man At The End (MATE) attacks
- 2020 - 2023 (3 edizioni): The A-TEST workshop
- 2020 - 2019 (2 edizioni): International Workshop on Governing Adaptive and Unplanned Systems of Systems (Gauss)
- 2018 - 2023 (6 edizioni): International Workshop on User Interface Test Automation and Testing Techniques for Event Based Software (INTUITESTBEDS).
- 2016 - 2019 (4 edizioni): Software Security, Protection, and Reverse Engineering Workshop. (SSPREW).
- 2012 - 2016 (5 edizioni): International Workshop on Search-Based Software Testing (SBST), IEEE
- 2015 - 2019 (3 edizioni): International Workshop on Software PROtection (SPRO).
- 2016: International Workshop on Software Mining (SoftwareMining).
- 2010: First International Workshop on Scientific Analysis and Policy Support for Cyber Security (SA&PS4CS 2010).
- 2009: First International Workshop on Software Security Process (SSP 2009).
- 2008: First International Workshop on Remote Entrusting. (RE-TRUST 2008).

- 2006: 3rd European Workshop on Aspects in Software. (EWAS 2006).
- 2005: Linking Aspect Technology and Evolution workshop (LATE 2005).

MEMBRO DI EDITORIAL BOARD E REVISORE:

Boards in riviste scientifiche:

- Journal of Software: Evolution and Process. Wiley. Guest editor of “*Special Issue on Source Code Analysis and Manipulation*”.
- Board of Distinguished Reviewers. ACM Transactions on Software Engineering and Methodology, ACM.
- Empirical Software Engineering, An International Journal. Springer. Review board.

Revisore per riviste scientifiche:

- IEEE:
 - Transactions on Software Engineering, IEEE computer society.
 - Transactions on Computers, IEEE computer society.
 - Transactions on Information Forensics & Security.
 - Software, IEEE computer society.
 - Computer, IEEE computer society.
- ACM
 - Transactions on Software Engineering and Methodology, ACM.
 - Transactions on information and System Security, ACM.
 - Transactions on Privacy and Security, ACM
- Springer
 - Journal of Automated Software Engineering.
 - Empirical Software Engineering.
 - International Journal of Information Security.
 - Journal of the Brazilian Computer Society.
- Elsevier
 - Science of Computer Programming.
 - Computers & Security.
 - Journal of System and Software.
- Wiley
 - Software Testing, Verification and Reliability.
 - Journal of Software Maintenance and Evolution: Research and Practice.
 - Software: Practice and Experience.
- IET
 - Software.
 - Information Security.

PUBBLICAZIONI:

Indici bibliometrici:

Secondo Google Scholar:

H-index: 35
 Citations: 3628
 i10index: 74

Numero di pubblicazioni:

34 in riviste scientifiche internazionali (peer reviewed)

54 in conferenze internazionali (peer reviewed)

Articoli in riviste scientifiche:

1. Davide Pizzolotto, Stefano Berlato, and Mariano Ceccato. Mitigating debugger-based attacks to java applications with self-debugging. *ACM Transactions Software Engineering and Methodology*, jan 2024
2. Lwin Khin Shar, Biniam Fisseha Demissie, Mariano Ceccato, Yan Naing Tun, David Lo, Lingxiao Jiang, Christoph Bienert, “Experimental comparison of features, analyses, and classifiers for Android malware detection”. *Empirical Software Engineering*, Springer, 28(6):1–40, 2023.

3. Andrea Romdhana, Alessio Merlo, Mariano Ceccato, and Paolo Tonella. "Assessing the security of inter-app communications in android through reinforcement learning". *Computers & Security*, 131:103311, Elsevier, 2023.
4. Michele Pasqua, Andrea Benini, Filippo Contro, Marco Crosara, Mila Dalla Preda, and Mariano Ceccato. "Enhancing ethereum smart-contracts static analysis by computing a precise control-flow graph of ethereum bytecode". *Journal of Systems and Software*, 200:111653, 2023.
5. Andrea Romdhana, Alessio Merlo, Mariano Ceccato, Paolo Tonella. "Deep Reinforcement Learning for Black-Box Testing of Android Apps". *ACM Transactions on Software Engineering and Methodology*, 31(4), jul 2022.
6. Davide Corradini, Amedeo Zampieri, Michele Pasqua, Emanuele Viglianisi, Michael Dallago, Mariano Ceccato. "Automated Black-Box Testing of Nominal and Error Scenarios in RESTful APIs". *Software Testing, Verification and Reliability*, Wiley 32(5):e1808, 2022.
7. Salvatore Manfredi, Mariano Ceccato, Giada Sciarretta, and Silvio Ranise. "Empirical validation on the usability of security reports for patching tls misconfigurations: User-and case-studies on actionable mitigations". *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications*, 13(1):56–86, 2022.
8. Biniam Fisseha Demissie, Mariano Ceccato, Lwin Khin Shar. "Security Analysis of Permission Re-delegation Vulnerabilities in Android Apps" *Empirical Software Engineering*, 25:5084-5136, 2020.
9. Emanuele Viglianisi, Mariano Ceccato, Paolo Tonella. "A Federated Society of Bots for Smart Contract Testing". *Journal of Systems and Software*, 168:110647, 2020.
10. Roberto Fellin and Mariano Ceccato "Experimental assessment of xor-masking data obfuscation based on k-clique opaque constants". *Journal of Systems and Software*, 162:110492, 2020.
11. Stefano Berlato and Mariano Ceccato "A large-scale study on the adoption of anti-debugging and anti-tampering protections in android apps". *Journal of Information Security and Applications*, 52:102463, 2020.
12. Alessio Viticchie, Leonardo Regano, Cataldo Basile, Marco Torchiano, Mariano Ceccato, Paolo Tonella "Empirical Assessment of the Effort Needed to Attack Programs Protected with Client/Server Code Splitting". *Empirical Software Engineering*, accepted, to appear.
13. Mariano Ceccato, Paolo Tonella, Cataldo Basile, Paolo Falcarin, Marco Torchiano, Bart Coppens, and Bjorn De Sutter. "Understanding the behaviour of hackers while performing attack tasks in a professional setting and in a public challenge". *Empirical Software Engineering, Springer*, 24(1):240-286, Feb 2019.
14. Mariano Ceccato, Alessandro Marchetto, Leonardo Marian, Cu D. Nguyen, Paolo Tonella. "Do Automatically Generated Test Cases Make Debugging Easier? An Experimental Assessment of Debugging Effectiveness and Efficiency". In *ACM Transactions on Software Engineering and Methodology*, 25(1):5:1-5:38, Dec. 2015
15. Mariano Ceccato, Andrea Capiluppi, Paolo Falcarin, and Cornelia Boldyreff. "A large study on the effect of code obfuscation on the quality of java code". In *Empirical Software Engineering*, 20(6):1486-1524, 2015.
16. Luca Sabatucci, Mariano Ceccato, Alessandro Marchetto, Angelo Susi. "Ahab's legs in scenario-based requirements validation: An experiment to study communication mistakes". In *Journal of Systems and Software*, 109:124-136. Elsevier. 2015.
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