Curriculum Vitae Europass

Personal Information

Name / Surname	**Morena Barboni**

Current Occupation

Phd Student in Computer Science and Mathematics
Università di Camerino

Professional Experience

2021	Research Fellow at CNR-IASI

Research Fellow in the SaKS group at the IASI "A. Ruberti" CNR, Rome, Italy.
PRIN 2017 Research Programme: SISMA: Solutions for Engineering Microservice Architectures.
Reference Prof. Antonia Bertolino, Prof. Guglielmo De Angelis

Education and Training

2018- 2020	Master's Degree in Computer Science 110L Università di Camerino
2015- 2018	Bachelor's Degree in Computer Science 110L Università di Camerino

Specialized Education

8/07/2024-12/07/2024	Participation: Summer School on Software Testing, Verification & Validation (TAROT) Università degli studi di Bergamo
27/11/2022-18/10/2022	Participation: International School on Algorand Smart Contracts Università degli studi di Cagliari (Online)
27/06/2022-01/07/2022	Participation: 3rd Blockchain and Distributed Ledger Technology School Università degli studi di Cagliari

International Mobility

February 2024 - June 2024	Visiting PhD Student at Universität Passau, Germany During the period abroad I worked on the application of LLMs and Mutation Testing to automatically derive test cases for Solidity Smart Contracts. Reference Prof. Gordon Fraser

Presentations and Seminars

2024	Paper Presentation at the 17th International Conference on the Quality of Information and Communications Technology (Quatic), Pisa, Italy.
2024	Paper Presentation at the IEEE International Conference on Blockchain and Cryptocurrency (ICBC) Dublin, Ireland.

2023	Doctoral Forum Presentation at the 38th IEEE/ACM International Conference on Automated Software Engineering (ASE 2023), Kirchberg, Luxembourg.
2023	Paper Presentation at the IFIP-ICTSS 35th International Conference on Testing Software and Systems (ICTSS), Bergamo, Italy
2022	Paper Presentation at the 15th International Conference on the Quality of Information and Communications Technology (Quatic), Talavera de la Reina, Spain.
2022	Paper Presentation at the 5th International Workshop on Emerging Trends in Software Engineering for Blockchain (WETSEB), Online.
2021	Paper Presentation at the 14th International Conference on the Quality of Information and Communications Technology (Quatic), Online.
2021	Paper Presentation at the 2nd ACM/IEEE International Conference on Automation of Software Test (AST), Online.

Research Activity

2022-2024	(Co-)Organisation of Winter School Co-organiser of the "International Winter School on Blockchain technology and Application" University of Camerino, Italy
2021-2024	Reviewer for the following conferences and journals: ● Journal of Software Maintenance and Evolution (JSME) ● Journal of Software: Evolution and Process (JSEP) ● Journal of Systems and Software (JSS) ● SoftwareX ● Software: Practice and Experience ● International Conference on Automation of Software Test (AST) ● International Conference on Perspectives in Business Informatics Research (BIR) ● International Conference on Knowledge Science, Engineering and Management (KSEM) ● International Conference on Testing Software and Systems (ICTSS) ● The Practice of Enterprise Modeling (PoEM)

Teaching Activity

2021-2024	Co-Supervisor For several group projects, bachelor's and master's theses. University of Camerino, Italy
2024	Tutor for the Software Engineering Course University of Camerino, Italy
2024	Teaching Activity Lecture on "Smart Contract Testing in Practice" University of Camerino, Italy
2024	Tutoring Activity Tutor for the group projects during the "International Online Winter School on Blockchain Technology and Applications - Hyperledger" University of Camerino, Italy
2024	Teaching Activity Lecture on "Fabric SDK - Laboratory and Project Assignment" for the "International Online Winter School on Blockchain Technology and Applications - Hyperledger" University of Camerino, Italy
2023	Tutoring Activity Development of a video game for teaching blockchain through gamification concepts - IIS "E. MATTEI" University of Camerino, Italy

2023	Teaching Activity
	Lecture on "Smart Contract Testing and Hardhat Tutorial"
	University of Camerino, Italy
2023	Teaching Activity
	Lecture - "Introduction to Javascript" - IIS "E. MATTEI"
	University of Camerino, Italy
2023	Tutoring Activity
	Teaching Solidity Smart Contract programming with CryptoZombies
	ITT Montani, Fermo, Italy
2022	Tutoring activity
	Tutor for the group projects during the "International Online Winter School on Blockchain Technology and Applications - Hyperledger"
	University of Camerino, Italy
2022	Teaching Activity
	Lecture on "Fabric SDK, Laboratory and Project Assignment" for the "International Online Winter School on Blockchain Technology and Applications - Hyperledger"
	University of Camerino, Italy

Mother tongue | **Italian**

Other languages

	Understanding		Speaking		Writing
	Listening	Reading	Spoken Interaction	Spoken Production	
English	C1	C1	C1	C1	C1
French	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

Driving license | B

Publications

1. Morena Barboni, Andrea Morichetta, Andrea Polini, Sebastian Banescu and Edward Zulkoski. Mutation Testing of Smart Contracts As a Service. Proceedings of the 17th International Conference on the Quality of Information and Communications Technology (QUATIC), 2024

2. Sebastian Banescu, Morena Barboni, Andrea Morichetta, Andrea Polini and Edward Zulkoski. Enhanced mutation testing of smart contracts in support of code inspection. Proceedings of the 2024 IEEE International Conference on Blockchain and Cryptocurrency (ICBC) 2024

3. Morena Barboni, Guglielmo De Angelis, Andrea Morichetta and Andrea Polini. CATANA: Replay Testing for the Ethereum Blockchain. Proceedings of the 35th IFIP International Conference on Testing Software and Systems (ICTSS) 2023

4. Morena Barboni, Antonia Bertolino and Guglielmo De Angelis. Flakiness goes live: Insights from an In Vivo testing simulation study. Information and Software Technology (IST), 2023

5. Morena Barboni, Andrea Morichetta, Andrea Polini and Francesco Casoni. ReSuMo: a regression strategy and tool for mutation testing of solidity smart contracts. Software Quality Journal (SQJ), 2023

6. Morena Barboni, Andrea Morichetta and Andrea Polini. SuMo: A mutation testing approach and tool for the Ethereum blockchain. Journal of Systems and Software (JSS), 2023

7. Morena Barboni, Francesco Casoni, Andrea Morichetta and Andrea Polini. ReSuMo: Regression Mutation Testing for Solidity Smart Contracts. Proceedings of the 15th International Conference on the Quality of Information and Communications Technology (QUATIC), 2022

8. Morena Barboni, Andrea Morichetta and Andrea Polini. Smart Contract Testing: Challenges and Opportunities. Proceedings of the 5th IEEE/ACM International Workshop on Emerging Trends in Software Engineering for Blockchain (WETSEB), 2022

9. Morena Barboni, Antonia Bertolino and Guglielmo De Angelis. What we talk about when we talk about software test flakiness. Proceedings of the 14th International Conference on the Quality of Information and Communications Technology (QUATIC), 2021

10. Morena Barboni, Andrea Morichetta and Andrea Polini. SuMo: A Mutation Testing Strategy for Solidity Smart Contracts. Proceedings of the IEEE/ACM International Conference on Automation of Software Test (AST), 2021