

Stefano Campanella

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Profile

I hold a strong academic background in Software and Data Engineering, as well as Software Systems Security, which has enabled me to approach modern development challenges with both technical expertise and strategic thinking. My experience spans from research and mentoring in academic settings to the design and delivery of effective software solutions in industry. I combine solid development skills with a clear understanding of user needs, consistently translating complex requirements into reliable, high-quality systems. Driven by a long-standing passion for design and video games, I place strong emphasis on systems usability, seeking intuitive and engaging ways to shape the user experience in the systems I develop.

Skills

Angular - Bash - Continuous Integration/Delivery - Data Mining - Docker - FastAPI - Generative AI/LLM - Git - GraphQL - HTML/CSS - Ionic - Java - JavaScript/TypeScript - Linux - Machine Learning - Mobile Development - NLP - Pharo - Public Speaking - Python - Smalltalk - Scikit-learn - Weka - XCode - Teamwork - Tensorflow

Experience

Software Engineer - Research Fellowship	<i>Università della Svizzera italiana</i>	Lugano, CH
Tech Stack: Python — Pharo Smalltalk — Docker — LaTeX — Git		Oct 2023 – Current
○ Fellowship in the “Reverse Engineering, Visualization, Evolution Analysis Lab” group (REVEAL)		
○ Research in the context of characterizing developers’ activities and behavior in Open-Source projects		
○ Teaching assistant duties for “Engineering of Domain Specific languages” and “Software atelier 4”		
Front-End Software Engineer	<i>Datasound SRL</i>	Molise, IT
Tech Stack: Angular — Docker — Java Android — Swift — Git		Mar 2022 - Jan 2023
○ Maintenance of an Angular web portal for management software		
○ Implementation of an Ionic mobile application for management software		
○ Integration between the web portal and the mobile application		
Software Engineer - Research Fellowship	<i>University of Molise</i>	Molise, IT
Tech Stack: Angular — Java SpringBoot — Docker — Git		Mar 2022 – Aug 2022
○ Implementation of a tailored tool (Angular web portal, Ionic mobile application) aimed at implementing conservation objectives and measures in “Natura 2000” sites included in Reserves and other government areas managed by the Carabinieri (National Gendarmerie of Italy)		
○ acted as developer, UI/UX designer, and product owner for the project		
Front-End Team Leader / Software Engineer	<i>Associazione Perfetta Letizia</i>	Molise, IT
Tech Stack: Angular — Git		Oct 2021 – Dec 2021
○ UI/UX Design for a mobile application		
○ Team management for the FE group and direct interaction with the stakeholders for the requirement analysis		
○ Implementation of a mobile application in Ionic used by Associazione Perfetta Letizia to support elders in the local community		

Education

Università della Svizzera italiana	<i>MS in Software and Data Engineering</i>	Sept 2022 – July 2023
○ Coursework: Software engineering, High-performance computing, Artificial Intelligence, Software analytics, Software design and modeling (MSDE)		
University of Molise	<i>MS in Software System Security</i>	Sept 2021 – July 2023
○ Coursework: Network security, Software security, Computer forensics, Software analytics (SSS)		
University of Molise	<i>BS in Computer Science</i>	Sept 2018 – Oct 2021

Projects

Python wrapper for CLOC (pycloc 🔗)	2025
◦ Developed a wrapper to execute the CLOC CLI tool within Python code	
Data miner for Git projects and GitHub interactions (gitminer 🔗)	2024-2025
◦ Developed a miner for the reveal group, capable of executing large-scale mining of GitHub repositories, collecting git and GitHub-related information (commits, issues, etc.)	
◦ Implemented in Pharo Smalltalk and deployed with Docker	
Proof of Concept Tool to automate videogame testing (MS Thesis)	2023
◦ Developed a working proof of concept to replicate gameplay execution on Trackmania, from videos scraped from Twitch.tv using machine learning techniques	
◦ Resulted in a publication @ fase4games2024 (colocated FSE24)	
Blood Pressure Measuring App (BS Thesis)	2021
◦ Developed a machine learning model to measure blood pressure from ECG data collected with a smartwatch.	
◦ Designed a prototype for a native Android app to measure blood pressure.	

Publications

Fine-Grained Developer Reification	July 2025
Stefano Campanella	
10.1145/3696630.3731463 🔗	
Hidden in the Code: Visualizing True Developer Identities	Oct 2024
Stefano Campanella, Michele Lanza	
10.1109/VISSOFT64034.2024.00013 🔗	
Towards the Automatic Replication of Gameplays to Support Game Debugging	July 2024
Stefano Campanella, Emanuela Guglielmi, Rocco Oliveto, Gabriele Bavota, Simone Scalabrino	
10.1109/3663532.3664465 🔗	

Languages

Mother Tongue: Italian

Other languages: English (C1)