Stefano Campanella

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Profile

Creative and curious Software Engineer with a strong academic background in Computer Science and a growing expertise in software engineering research. With a broad knowledge that ranges from software and data engineering to system security, I combine solid technical foundations with a passion for exploring innovative ideas. I thrive in multidisciplinary environments, enjoy tackling complex problems, and constantly seek challenges to sharpen my skills and drive innovation. During my research experience, I also acquired fundamental soft skills such as mentoring, public speaking, problem solving, and critical thinking.

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 Smalltalk - Python - Scikit-learn - Weka - XCode

Experience

Software Engineer - Research Fellowship   Lugano, CH
Università della Svizzera italiana   Oct 2023 – Sep 2025

- Fellowship in the "Reverse Engineering, Visualization, Evolution Analysis Lab" group (REVEAL ↗)
- Teaching assistant duties for "Engineering of Domain Specific languages" and "Software atelier 4", Academic years 23-24 and 24-25.

Front-End Software Engineer   Molise, IT
Datasound SRL   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   Molise, IT
University of Molise   Mar 2022 – Aug 2022

- UI/UX Design for a mobile application and web portal
- 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)

Front-End Team Leader / Software Engineer   Molise, IT
Associazione Perfetta Letizia   Oct 2021 – Dec 2021

- UI/UX Design for a mobile application
- Team management for the FE group involved in the implementation of the system
- Implementation of a mobile application in Ionic used by Associazione Perfetta Letizia to support elders in the local community

Education

Università della Svizzera italiana *MS in Software and Data Engineering*   Sept 2022 – July 2023

- **Coursework:** Software engineering, High-performance computing, Artificial Intelligence, Software analytics, Software design and modeling (MSDE ↗)

University of Molise *MS in Software System Security*   Sept 2021 – July 2023

- **Coursework:** Network security, Software security, Computer forensics, Software analytics (SSS ↗)

University of Molise *BS in Computer Science*   Sept 2018 – Oct 2021

Publications

Hidden in the Code: Visualizing True Developer Identities   Oct 2024

Stefano Campanella, Michele Lanza

[10.1109/VISSOFT64034.2024.00013](https://doi.org/10.1109/VISSOFT64034.2024.00013) ↗

Towards the Automatic Replication of Gameplays   July 2024
to Support Game Debugging

Stefano Campanella, Emanuela Guglielmi, Rocco Oliveto,
Gabriele Bavota, Simone Scalabrino

[10.1109/3663532.3664465](https://doi.org/10.1109/3663532.3664465) ↗

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   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.