

Noemi Terzo

Website | LinkedIn | Scholar
firstname.lastname@mpi-sp.org

Professional Experience

Doctoral Researcher in Cryptographic Engineering Feb 2024 – Present
Max Planck Institute for Security and Privacy – Bochum, Germany

Research interests: Security Analysis and Formal Verification of Protocols, Post-Quantum Cryptography.
Supervised by Peter Schwabe.

Cybersecurity Engineer Intern May 2023 – Oct 2023
European Space Agency – Darmstadt, Germany

Responsible for the implementation of Post-Quantum Cryptography for ground-to-space communications.
Participated in OPS-SAT satellite mission.

Cybersecurity Engineer Intern Feb 2023 – Apr 2023
C4 Army Command - Italian Armed Forces – Rome, Italy
Developed a P.o.C. for a hybrid digital identity management architecture based on Blockchain.

Education

M.Sc. in Computer Engineering, specialization in Cybersecurity Sept 2021 – Dec 2023
Polytechnic University of Turin

- Grade: 110/110
- **Thesis:** "Design and in-orbit Demonstration of a Post-Quantum Cryptographic Solution Based on KEMTLS-PDK to Enhance Satellite Communication Security"

B.Sc. in Computer Engineering Sept 2018 – Sept 2021
University of Calabria

- Grade: With Honors and Academic Mention
- **Thesis:** "Cybersecurity and Human Factor: Techniques and Tools for Social Engineering"

Key Skills

Formal Methods: Tamarin Prover, ProVerif
Reverse Engineering: Ghidra, Radare2, GDB
Penetration Testing: Kali Linux, nmap, Wireshark, BurpSuite, Aircrack-ng
Forensic Analysis: CAINE, Maltego
Static Analysis: Flawfinder, PVS-Studio, Spotbugs, FindSecBugs
Concolic Analysis: angr

Programming languages: Assembly, Bash, C, Java, Maple, MATLAB, PowerShell, Python, Rust, Simulink, VHDL
Web Development: CSS, Dart, Flutter, HTML, JavaScript, React.js
Database Technologies: Apache Spark, Hadoop MapReduce, PostgreSQL, SQL, XPath, XQuery

Grants and Awards

CYBERCHALLENGE.IT 2023 – Selected to be part of Polytechnic University of Turin team for the main Cybersecurity Italian training program organized by CINI Cybersecurity National Lab.

START STEM Scholarship 2022 – Financed by Unione Industriali Torino.

5x1000 Award 2022 – Financed by University of Calabria.

National Register of Excellence 2018 – Issued by the Ministry of Education, University and Research.

Olympic Games of Classical Languages and Civilizations 2017 – Issued by the Ministry of Education, University and Research. Awarded First Place in the Classical Civilizations Category, Calabria Region.

Languages

Italian: native; **English:** full professional proficiency, B2 First certificate