

Christian Coduri

 Turin, Italy

 coduric

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 <https://coduri.cc/>



Employment History

Nov 2023 - May 2024



External Collaborator, PWNX s.r.l., Remote

- Designed and implemented ten cryptography laboratories in *Python*, employing a "Capture the Flag" approach to enhance learning experiences.
- Developed more than thirty personalized one-on-one modules focused on Linux Security and Cryptography Theory for individualized learning.

May 2019 - Jun 2019



IT Intern, SECAM s.p.a., Sondrio (SO).

Education

2023 – now



M.Sc. Cybersecurity Engineering, Polytechnic University of Turin.

- **Specialist track:** Cryptography expert.
- **Thesis title:** *Defending Hospitals of the Future: Backdoor Attacks in Federated Learning and CNN-Based Medical Image Analysis.*
- **GPA:** 29.65/30

2020 – 2023



B.Sc. Computer Systems and Networks Security, University of Milan.

- **Thesis title:** *Advanced Techniques of Visual Cryptography and Steganography for Sharing of Medical Images.*
- **Graduation Mark:** 110/110 cum laude | **GPA:** 29.38/30

2015 – 2020



High School Diploma in Computer Science, ITIS E. Mattei (Sondrio).

- **Graduation Mark:** 96/100

Language Certifications

Jan 2024



English: IELTS Academic Exam, Overall Band Score: 7.5/9

CEFR Level: C1.

Additional Courses

Oct 2024 – Jan 2025



Connected and Automated Vehicles, Challenge@PoliTO by Stellantis.

Collaborated in a multidisciplinary team to explore challenges related to future Autonomous Vehicles and V2X technology. My role mainly focused on identifying potential cybersecurity vulnerabilities and exploring theoretical solutions.

Feb 2023 – May 2023



CyberChallenge - Cybersec Training Program, Cybersecurity National Lab.

Chosen as one of the 20 students from the University of Milan to join the Italian National Cybersecurity Training, the Italian Government's main initiative for identifying and training future cybersecurity professionals.

Nov 2022



International Cyber Conflicts, The State University of New York (*Remote*).

Gained an understanding of international cybersecurity policies, as well as the psychological and sociopolitical factors influencing attackers and cyberattacks.

Projects

Personal Projects

- Jan 2025 – Mar 2025  **VisualCrypto.** A Python-based toolkit for Visual Secret Sharing (VSS), implementing cryptographic techniques that split a secret image into multiple shares. The project allows adding new cryptographic schemes and includes a web interface for ease of use. <https://github.com/coduri/VisualCrypto>.
- 2020 – 2022  **Get The Cookie.** A YouTube Channel with the goal of helping university and high school students understand computer science concepts (*in Italian*). Achieved over 1 million views, demonstrating the significant impact of the project. <https://www.youtube.com/GetTheCookie>.
- 2020 – 2021  **FitFocus.** An online fitness platform that allowed users to manage nutrition, track progress, and organize workout plans. Trainers could monitor clients' progress and provide feedback. Initially built on a *LAMP stack*, the backend was later transitioned to *NodeJS* to improve functionality and performance.

University Projects

- Dec 2023 – Feb 2024  **DDoS Attacks Detection with Machine Learning.** Analyzed a dataset of benign and malicious packets, applying both supervised and unsupervised learning techniques, along with a cluster explainability analysis.
-  **Embedded OS Customization.** Explored the complexities of embedded systems by developing a custom FreeRTOS Lottery Scheduler for Arm Cortex-M3 on QEMU, enhancing scheduling capabilities beyond default implementations.

Publications

- 1 C. Coduri and S. Cimato, "A framework for secure sharing of medical images based on visual cryptography," in *2025 IEEE 49th Annual Computers, Software, and Applications Conference (COMPSAC)*, 2025, pp. 2008–2013.  DOI: [10.1109/COMPSAC65507.2025.00280](https://doi.org/10.1109/COMPSAC65507.2025.00280).

Awards

- Jan 2025  **Fondazione Felix Leemann Scholarship** - Lugano (Switzerland). [3000 CHF]
Awarded for academic excellence as a Swiss student from the Canton of Graubünden.
- Mar 2024  **STart STem Scholarship** by the Unione Industriali Torino. [3000€]
 - Selected as one of the top 64 first-year master's students in STEM disciplines at Polytechnic University and University of Turin.
 - Delivered 40 hours of **math academic support** to lower secondary school students.

Professional Development and Activities

- Jun 2024 – now  **De Componendis Cifris APS**, Young Member
- 17 May 2022  **Cybersecurity Introduction - Portogruaro (Italy)**, Remote Speaker
Gave an introductory talk on cybersecurity at *ISIS Gino Luzzatto* (VE), focusing on key concepts and online security awareness.