

Lorenzo Colombini

Grosseto, Italy

Work Experience

Tutor, CyberChallenge.IT - Sapienza University of Rome, DIAG

Feb 2024 - July 2025

- **Teached** and **tutored** the local **CyberChallenge.IT** 2024 Edition about binary exploitation
- The team of the 2024 edition archived the **1st place** in the **Attack/Defense-Style National** Competition

Tutor, CyberChallenge Bootcamp - Sapienza University of Rome, DIAG

Oct 2023 - Dec 2024

- **teaching** at **CyberChallenge Bootcamp**, Practical Cybersecurity Course, from program's first edition
- **Developed and reviewed** challenges about binary exploitation for the course

Education

Sapienza University of Rome - Master Degree in Computer Science

Sep. 2024 - Ongoing

Sapienza University of Rome - Bachelor's Degree in computer and control engineering

Oct. 2020 - Apr. 2024

- Member of the local **CTF team** TheRomanXpl0it (**TRX**)

Istituto tecnico Manetti Porciatti - High school diploma

Sep. 2014 - June 2019

- Member of the local **Robocup team** Manetti-Team (**Soccer Open**)

CyberChallenge.IT - Sapienza University of Rome

Feb. 2023 - Jul. 2023

- **Winner** of **National** Competition in 2023 edition
- Won **Best Defense Award** and **Best Presentation Award** in Turin national competition
- Attended lessons about **Cryptography**, **Reverse Engineering**, **Binary** Exploitation and **Web** Security

Projects

Cyberchallenge.diag

Designed and realized the training platform

- **Developed** the whole platform for the Capture-The-Flag (CTF) training infrastructure, hosting **real-world** cybersecurity challenges

SAT solver

Developed a new **heuristics** for 3-SAT solving in **Rust**

- Designed to exploit the main properties of **3-SAT**
- Optimized use of rusts's **macros**, improving implication graph's exploring efficiency

Skills

Programming Python, C/C++, RUST, ASM (X86, RISC-V, ARM), Metal, Zsh, SQL, JavaScript, HTML, CSS, Java, Swift

Miscellaneous Linux, Shell (Bash/Zsh), Docker, GDB, Vim, Git, IDA Pro, Ghidra, Burp-Suite

Achievements

June 2018 **ROBOCUP JUNIOR, 2nd Place** European Robocup Soccer Open

Hanover

June 2018 **Agricultural Robot, 1st Place** Rotary club scholarship for developing an agricultural robot **500€**

Hanover

Jun. 2023 **CyberChallenge.IT, 1st place** in the **Attack/Defense-Style National** Competition

Turin

Apr. 2024 **Hackaton Best, 1st place** in the hackaton for developing a full stack web application **1000€**

Rome

Aug. 2024 **DEFCON 32 FINALS, 6th place** in the **Attack/Defense-Style** with **Mhackeroni** team

Las Vegas

Nov. 2024 **CSAW ESC, 1st place** in the **Hardware European** Competition

Valance

Feb. 2025 **Research fellowship, Winner** of the research fellowship for the development of challenges of binary exploitation in a biomedical device

Rome