

Salvatore Maccarrone

M.Sc. in Computer Science and Engineering

*Cybersecurity enthusiast and team player.
I can pick up everything you show me very quickly.*

Willing to relocate in Europe for the right opportunity.

Experience

- 04/2022– **Researcher**, *NECSSTLab@Polytechnic of Milan*, Milan
06/2023 Full-time research project with a colleague on state-of-the-art Windows malware detection systems. We devised a novel strategy to deceive machine learning-based detection systems that use API call sequences as features. We achieved an impressive success rate of up to 99% at the feature level against state-of-the-art deep neural network models, while minimizing the necessary modifications. The final outcome is an authored academic article that is currently undergoing review at a prestigious Computer Security conference. Additionally, we have developed a Python framework capable of modifying Windows PE malware samples using multiple x64 assembly stubs.

Academic Career

- 03/2020– **Polytechnic of Milan**, *M.Sc.*, Computer Science and Engineering, Cybersecurity Track
05/2023 ○ Score: 109/110, top 5%
10/2016– **University of Catania**, *Bachelor*, Computer Science and Engineering
10/2019 ○ Score: 110/110 with honors, top 5%
09/2011– **Liceo Scientifico "Leonardo"**, *High school*
06/2016 ○ Score: 96/100

Projects

- 02/2022– **RCU on Unix v6's Kernel**, *Polytechnic of Milan*, Group Project
09/2022 Modified a simple Linux Kernel to implement an advanced concurrency mechanism, Read-Copy-Update.
<https://github.com/salvoM/xv6-riscv-rcu>
09/2021– **Computer Security CTF challenges**, *Polytechnic of Milan*, Individual
02/2022 Hands-on Computer Security challenges from shellcode development to heap exploitation.
<https://github.com/salvoM/ODC-challenges>

Skills

- Languages • Italian: native language, • English: professional knowledge
Hard skills • C, • Python, • x86-64 asm, • IDA, • GDB, • Malware Analysis, • Network Security,
• Reverse Engineering, • Linux

Certificates and Courses

- 07/2023– **Junior Cybersecurity Analyst**, *TryHackMe*
present
07/2023 **Cybersecurity Fundamentals**, *IBM Skills Build*
2021 **Cybersecurity Academy**, *Polytechnic of Milan*
2020 **English Cambridge First**, *B2, Grade A*