

Salvatore Maccarrone

*MsC of Computer Science and Engineering student following
the cybersecurity path at Politecnico di Milano.*

I am currently working on my MsC thesis.

*I have to devise and implement a method to modify the
dynamic behavior of malware without losing its original
functionality, with the aim of invalidating dynamic malware
analyzers that perform detection*

Academic Career

03/2020– present **Politecnico di Milano**, *MsC*, Computer Science and Engineering, Current GPA: 27.9/30

○ Exams of interest:

- Offensive and Defensive Cybersecurity
- Computer Security
- Cryptography and Architectures for Computer Security
- Advanced Operating Systems
- Digital Forensics and Cybercrime
- Machine Learning

10/2016– **Università degli Studi di Catania**, *Bachelor*, Ingegneria Informatica

10/2019 ○ Score: 110/110 cum laude

09/2011– **Liceo Scientifico "Leonardo"**, *High school*

06/2016 ○ Score: 96/100

Skills

Languages ○ Italian: native language
○ English: professional knowledge

Information Technology ○ University projects spanning various fields

- CTF-like challenges for binary exploitation, from shellcode development to *heap exploitation*; race conditions, packed malware (**Offensive and Defensive Cybersecurity**)
- Modify Unix v6's Kernel to implement an advanced locking mechanism on a kernel structure (**Advanced Operating Systems**)
- Alloy Formal Specification Language project (**Software Engineering 2**)
- CRUD Application with backend in PHP and MySQL database that uses REST APIs of Spotify (**Database & Web Programming**)
- Exam tests modifying ACSE (Advanced Compiler System for Education) (**Formal Languages and Compilers**)

Tools ○ Reverse Engineering Tools

- IDA
- Ghidra
- Angr
- Z3

○ Programming Languages

- C
- Python
- x86-64 asm

Soft Skills ○ Ability to work and communicate effectively in groups

○ Critical thinking

Certificates and Courses

2021 **Cybersecurity Academy**, *Politecnico di Milano*

2020 **Cambridge First**, *B2*, Grade A