

# Alessandro MIRAGLIOTTA










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Ex-Qualcomm Intern as Hardware Engineer and recent master graduate in Computer Engineering at Sapienza university of Rome. Graduated with a Bachelor in Computer and Control Engineering at Sapienza university in October 2021. I love System Security and Computer Architecture. Linux and Open Source lover. Interested in learning new technologies and tools if the need arises








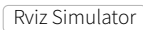



## EDUCATION

- 2021-2024 **M.S. in Computer Engineering - Sapienza University of Rome**  
Thesis : Pattern-Based MMIO Modeling and Fuzzing Techniques for Firmware Rehosting : A Case Study on Arm Cortex-M3 based Drone
- 2018-2021 **B.S. in Computer and Control Engineering - Sapienza University of Rome**

## WORK EXPERIENCE

- September 2022  
February 2023 **Hardware Verification Engineer Intern, QUALCOMM , Cork, Ireland**
- > EVA/Video team, developing HW for a custom Vision Processing Unit
  - > Developed internal automation tools
  - > Regression Tests for verification
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## PROJECTS

- RISC-V SINGLE CYCLE PROCESSOR** JANUARY 2022 - FEBRUARY 2022  
 [github.com/alem1r/RISC-V-Single-Cycle-Processor](https://github.com/alem1r/RISC-V-Single-Cycle-Processor)  
Implementation in Verilog of a RISC-V 32 bit Single Cycle Processor. It supports all the unprivileged instructions.  
  
- ROBOT OPERATING SYSTEM PROGRAM TO LOCATE OBSTACLES** SEPTEMBER 2021 - OCTOBER 2021  
 [github.com/alem1r/Collision-Avoidance-](https://github.com/alem1r/Collision-Avoidance-)  
The aim of this C++ ROS node is to locate obstacles through the laser scan and adjust the velocity in order to not collide.  
  
- SIMPLE UNIX FILE SYSTEM IN USER SPACE** JULY 2021 - AUGUST 2021  
 [github.com/alem1r/simple\\_file\\_system](https://github.com/alem1r/simple_file_system)  
Implementation of a UNIX file system in user land.  
 

## SKILLS

Programming	C,Python
Disassembler	IDA
HDL	Verilog
Development tools	VS Code,Git,ClearCase
System	GNU/Linux,Assembly x86,RISC-V
Other	ChipWhisperer,LaTex,HTML,GNU Octave

## CERTIFICATIONS

- > B2 - First Certificate in English (Cambridge)
- > EC-COUNCIL Reverse Engineering
- > Cisco Network IT Essentials