# Mirco De Zorzi April 4, 2002

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#### **EDUCATION**

• I.T.I.S J.F.Kennedy

Diploma in Information Technologies

Pordenone, IT 2016 - present

### **SKILLS**

- Languages: Assembly (x86 and Cortex ARM), C, C++, Go, Lua, Python, PHP, JavaScript, Elisp
- Other Tools: Emacs, R.O.S., MongoDB, Prometheus, SQL
- Administrative Tools: AWS, Git, Ansible, Docker, Linux, BSD
- Natural Languages: : Italian (native), English (proficient), Slovakian (second language)

### EXPERIENCE

### Technological Systems by Moro

Reverse Engineering and Software Development

Azzano Decimo, Italy June 2019 - August 2019

- $\circ \ \ \textbf{Reverse Engineering} : \ \text{Reverse Engineered stripped firmware for an STM32 microprocessor.}$
- **Development**: Developed software components for *simultaneous localization and mapping* and *automated guided vehicles* on the R.O.S. operating system. The backend is written in C++ while the frontend in JavaScript.

# • Advanced Algorithms Summer School

Course

Ca' Foscari University, Venice, Italy July 2019

Attended a week-long *advanced algorithms* course at San Servolo International College for students qualified at the 2019 National Olympiad of Informatics. The topics ranged from dynamic programming to greedy algorithms and graphs.

## • Cyber Challenge 2019

Course

University of Padua and Pisa, Italy February 2019 - June 2019

Qualified at a national programming challenge organized by the *National Interuniversity Consortium for Informatics* at the University of Pisa and subsequently attended a 3 months long cybersecurity course at the University of Padua with topics such as: reverse engineering, pwning, web security, and cryptography. At the end of this course participated at a jeopardy CTF hosted by the organizers of the course.

#### **PROJECTS**

- hort (github.com/hort): Data mining and indexing framework written in modern C++.
- loki-cpp (github.com/mircodezorzi/loki-cpp): Modern C++ driver for Loki: a log aggregation system.
- sym: Process scheduling and memory management tui simulator written in pure C without the use of any third-party libraries.
- F.N.N.: Food classification web-service written in Python using Keras and Tensorflow.
- D.C.F.: Android application for personal daily carbon footprint tracking written in Java with a PHP + SQL backend.

### **CERTIFICATIONS**

Cisco IT Essentials, Cisco Introduction to Networks, and Cisco Cybersecurity Essentials

# Additional Experience & Achievements

- Selected to participate at the National Informatics Competition that will be taking place May 2020 in Turin, Italy.
- Won the M.I.U.R. prize at the *National Robotic Olympics* of 2019 held in Genoa with a remotely operated drone for environmental data collection and analysis. Later presented the project at the Italian ministry of education in Rome during the national day for the environment.
- Participated at a series of international open CTFs such as FaustCTF, CincestCTF, and TyumenCTF under the NoPwnIntended team.
- Participated at 3 national Rubik's cube competitions in Milan, Verona (IT) and Bratislava (SK) with a personal best of 18.67 seconds.