Mirco De Zorzi *April 4, 2002*

mircodezorzi@protonmail.com • +39 331 9174 467 • Github: Mirco De Zorzi • Vivaro, Pordenone, Italy

EDUCATION

- **I.T.I.S J.F.Kennedy** — PORDENONE, IT
  Diploma in Information Technologies — *2016 - present*

SKILLS

- **Languages**: C++, C, Golang, Python, Scala, TypeScript (Angular), PHP, Haskell
- **Other Tools**: AWS, MongoDB, ElasticSearch, SQL, Prometheus, Emacs
- **Administrative Tools**: Serverless, Git, Ansible, Docker, docker-compose, Linux, *BSD
- **Other Skills**: Binary Reverse Engineering, Private API Reverse Engineering
- **Natural Languages**: : Italian (native), English (proficient), Slovakian (second language)

EXPERIENCE

- **Technological Systems by Moro** — AZZANO DECIMO, ITALY
  Software Development — *December 2020 - March 2021*

  - **Development**: Developed software components for remote monitoring of machines. The infrastructure is based on AWS serverless and the code is written in Go.

  Reverse Engineering and Software Development — *June 2019 - August 2019*

  - **Development**: Developed software components for *simultaneous localization and mapping* and *automated guided vehicles* on the R.O.S. operating system; written in C++ and Javascript.
  - **Reverse Engineering**: Reverse Engineered stripped firmware for an STM32 microprocessor.

- **Advanced Algorithms Summer School** — CA' FOSCARI UNIVERSITY, VENICE, ITALY
  Course — *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** — UNIVERSITY OF PADUA AND PISA, ITALY
  Course — *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++.
- **pka2xml (github.com/mircodezorzi/pka2xml)**: Packet Tracer related tools obtained through reverse engineering.
- **loki-cpp (github.com/mircodezorzi/loki-cpp)**: Modern C++ driver for Loki: a log aggregation system.
- **oxy**: Intrusion prevention system based on a non-blocking architecture written in modern C++.
- **sym**: Process scheduling and memory management simulator written in pure C.

CERTIFICATIONS

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

ADDITIONAL EXPERIENCE & ACHIEVEMENTS

- Won the M.I.U.R. prize at the *National Robotic Olympics* of 2019 with a remotely operated drone for environmental data collection, processing, and analysis. Later exhibited the project at the Italian Ministry of Education in Rome during the National Day for the Environment.
- Qualified for the *National Robotic Olympics* of 2020 and the *National Informatics Competition* of 2020, which were both cancelled due to the COVID-19 pandemic.
- Frequently participate at international CTFs events such as *DEF CON CTF 2020* under Italys' national *mhackeroni* team.
- Participated at 3 national Rubik's cube competitions in Milan, Verona, and Bratislava (SK) with a personal best of 18.67 seconds.