

## EDUCATION

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- **I.T.I.S J.F.Kennedy**

*Diploma in Information Technologies*

PORDENONE, IT

2016 - present

## SKILLS

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- **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

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- **Technological Systems by Moro**

*Software Development*

AZZANO DECIMO, ITALY

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**

*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

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- **hort** ([github.com/hort](https://github.com/hort)): Data mining and indexing framework written in modern C++.
- **pka2xml** ([github.com/mircodezorzi/pka2xml](https://github.com/mircodezorzi/pka2xml)): Packet Tracer related tools obtained through reverse engineering.
- **loki-cpp** ([github.com/mircodezorzi/loki-cpp](https://github.com/mircodezorzi/loki-cpp)): Modern C++ driver for Loki: a log aggregation system.
- **sentry**: 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

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

## ADDITIONAL EXPERIENCE & ACHIEVEMENTS

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- 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.