

# LORENZO PATTARO ZONTA

Undergraduate BSc

✉ lorenzo.pattarozonta@studenti.unitn.it

🌐 lyreplus

🌐 lorenzo-pattaro-zonta

📍 Italy

## WORK EXPERIENCE

### Student Tutor for Advanced Programming Course

Trento, University of Trento

📅 Rust

📅 Sept 2023 - Feb 2024

- Development of weekly **exercise sheets** for the students on the topics covered during the lessons, along with other tutors.
- Collaboration with professor in **exam preparation** by writing exercises and tests for the midterms and finals.
- Providing weekly tutoring session to help students understand and apply advanced programming concepts in Rust.

### Student Tutor for Software Engineering Course

Trento, University of Trento

📅 NodeJS Agile MongoDB Javascript

📅 Feb 2024 - Jun 2024

- Writing **intermediate quizzes** on the topics covered in the lecture, with insights and clarifications for students.
- Tutoring support for explanation of the theoretical part and creation of the diagrams needed for the deliverables.
- Assistance in the realisation of full stack applications for the final project.

### Embedded Software Engineer

Trento, E-agle Trento Racing Team

📅 C C++ Make Git

📅 Nov 2023 - Present

- Developed and maintained code for the Formula SAE racing team's **steering wheel firmware**, based on a ST microcontroller. Low-level programming with MCU interrupts and LCD drivers.
- Use of LVGL GUI C library to create and customize the graphical appearance of the steering wheel's interface.
- Team collaboration and contribution with new ideas and insights to improve the racing team's overall performance.

## EDUCATION

### Bachelor's degree in Computer, Communications and Electronic engineering

University of Trento

📅 Sept 2021 - Sept 2024

#### Main courses

- Relevant Coursework included Algorithm and Data Structures, Advanced Programming (Rust-Based course with W3C-like project groups), Embedded Software of the IoT, Software Engineering and Operating Systems

## ACHIEVEMENTS

### Semifinals of First Lego League

Rovereto, Italy

📅 Feb 2020

#### Won the semifinals of the First Lego League Italy for the scientific project.

- Collaborated with a team to design an innovative solution for waste management, emphasizing teamwork and diverse skill integration.
- Conducted extensive online research and consulted with industry experts to ensure a robust understanding of the project's feasibility.
- Wrote a detailed study on the practical implementation of the proposed waste separation solution, emphasizing the development of a comprehensive proposal and feasibility studies.

## EXPERIENCES

### Summer School of Science

Požega, Croatia

📅 Jul 2019 - Aug 2019

- Participated in the Summer School of Science, collaborating with an international team of students to learn mathematical and computer science concepts for developing a **self-driving car model**.
- Applied Mathematics to AI: Explored tensors and neural network models, implementing them with Python and Jupyter Notebook.
- Built a Raspberry Pi-powered autonomous car, processing images for self-driving.

## SIDE PROJECTS

### BoSE Trader

Rust Application

📅 Rust Git

### Telemetry Recruiting Project

Multithreaded finite state machine.

📅 C++ Make C Makefile CMake pthreads

🌐 Lyreplus/recruiting-sw-telemetry-project-2