

Federico Marra

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Education

MSc in Computer Science and Engineering

TECHNICAL UNIVERSITY OF DENMARK (DTU)

Kongens Lyngby, Denmark

September 2024 - (June 2026)

- **Current GPA:** 9,93/12
- **Courses:** Data Security, Model Predictive Control, Program Verification, Software Engineering 2, User Experience Engineering, Logic for Security, Quantitative Sustainability, System Integration

BSc in Computer Engineering

UNIVERSITY OF STUDIES OF FLORENCE (UNIFI)

Florence, Italy

September 2019 - April 2024

- **Final grade:** 91/110 – **GPA:** 23,5/30
- **Relevant courses:** Database Management Systems, Software Engineering, Statistics, Distributed Systems, Industrial Information Technology, Discrete Mathematics And Coding Theory

Scientific Lyceum Guido Castelnuovo

SCIENTIFIC HIGH SCHOOL

Florence, Italy

September 2014 - June 2019

Skills

DevOps Docker, Github, Jira

Back-end Python, Java, C, C++, Rust

Front-end Typescript, React.js, HTML, CSS, Javascript, Angular, Ionic

Programming Node.js, Python, Java, C, C++, Matlab, Rust

Languages Italian (Mother tongue), English (C1), French (A2), Danish (A1.1)

Driving License B

Work Experience

Software Engineer

SNAP4 S.R.L.

Sesto Fiorentino, Florence, Italy

March 2024 - August 2024

- I developed *eShare in a Snap*, first car sharing and car pooling app in Italy.
- **Technology:** Typescript, Angular, Ionic, Firebase, Capacitor
- **eShare in a Snap:** <https://www.snap4.eu/products/eshare-in-a-snap-sustainable-mobility.html>
- **eShare in a Snap App Store:** <https://apps.apple.com/us/app/eshare-in-a-snap/id6572306097>
- **eShare in a Snap Google Play Store:** https://play.google.com/store/apps/details?id=com.snap4.eShare_in_a_Snap

Private Tutor

PRIVATE TUTOR

Florence, Italy

March 2023 - February 2024

- I tutored students in middle school mathematics, high school mathematics, and fundamentals of informatics at the university level for three different individuals

Election Scrutineer secretary

ITALIAN REPUBLIC

Florence, Italy

September 2022

- I served as the secretary in charge of counting ballots for international votes during the Italian Parliament election on 25th of September 2022.

Projects

DAPM, Distributed Architecture Process Mining

UNIVERSITY PROJECT

DTU

Fall Semester 2024

- In collaboration with my fellow students, as Software Engineering 2 project we extended two master thesis about DAPM Frontend and Backend, adding some new functionalities like process mining pipelines managing and access control to the distributed platform.

Four Tank MPC, Model Predictive Control

UNIVERSITY PROJECT

DTU

Fall Semester 2024

- In collaboration with a fellow student, as Model Predictive Control exam we implemented PID Controllers, Kalman filters, MPC, Non-linear MPC to a four tanks system.

Authentication, ACL and RBAC

UNIVERSITY PROJECT

DTU

Fall Semester 2024

- In collaboration with my fellow students, as Data Security project we implemented authentication, access control list and role based access control for a platform.
- **Technology:** Java
- **GitHub repository:** <https://github.com/jackstefa/dtu-ds-authentication>

Fronted Platooning Simulation

UNIFI

UNIVERSITY PROJECT

- In collaboration with a fellow student, as final project thesis we made a frontend Typescript simulation of the vehicle platooning phenomenon. We used the following libraries: React for UI rendering, Next.js for rendering server-side, p5.js to frame the canvas, Chart.js for graphic rendering and Paraglide.js for internationalization. It has also been written a thesis paper.
- **Technology:** Typescript, React.js, Next.js, p5.js, Chart.js, Paraglide.js
- **GitHub repository:** <https://github.com/albbus-stack/platooning-simulation>
- **Simulation website:** <https://platooning-simulation.vercel.app>

UNIFI

UNIVERSITY PROJECT

- Java application for the management of a patch pump or insulin infusion device in people affected by diabetes. It also allows a local database and a backup database containing the historical records of the performed operations.
- **Technology:** Java
- **GitHub repository:** <https://github.com/federicomarra/swe-diab>

UNIFI

Snap4All Android Java app

UNIVERSITY PROJECT

- In collaboration with the DISIT Computer Engineering Unifi department and a fellow student, an app for Android systems has been made in Java that allows the use of NODE-Red on an Android device, with the possibility of importing your own flows. In addition, the app has also been aesthetically updated and a wiki page has been added.
- **Technology:** Java, Termux, NODE-Red
- **GitHub repository:** <https://github.com/albbus-stack/snap4all>

UNIFI

DataScience project of comparison of Algorithms and Data Structures

UNIVERSITY PROJECT

- Jupyter notebook comparing Insertion Sort and Quick Sort algorithms, followed by a comparison of data structures Binary Search Trees and B-Trees.
- Link to the GitHub repository.
- **Technology:** Python, Jupiter Notebook
- **GitHub repository:** <https://github.com/federicomarra/asd-lab>

UNIFI

Clone website Newspaper Il Post

UNIVERSITY PROJECT

- Creation of a clone website of Il Post using only HTML and CSS.
- **Technology:** HTML, CSS
- **GitHub repository:** <https://github.com/federicomarra/federicomarra.github.io>
- **Clone website:** <https://federicomarra.github.io/ilpost>

Extracurricular Activity

Maccheroni Podcast

PODCAST COHOST

December 2022 - PRESENT

- I have honed my public speaking skills by engaging in in-depth discussions on a wide array of topics, including culture, personal development, and current events. This role has enhanced my ability to communicate effectively and think critically.

DTU Football Club

AMATEUR FOOTBALLER

December. 2011 - PRESENT

- I have been playing football since I was 11 years old, and I have played as a central forward in a second division team called Cobra Kai and now I am playing for DTU Football club.