Federico **Marra**

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Summary

Currently i am a MSc Student in Computer Science and Engineering at DTU, Technical University of Denmark. I have worked as Software Engineer and I am looking for a Student Job position that allows me to grow in the software developing field while pursuing my master.

Work Experience

Software Engineer
Sesto Fiorentino, Florence, Italy

SNAP4 S.R.L.
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
Florence, Italy

PRIVATE TUTOR
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
Florence, Italy

ITALIAN REPUBLIC
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.

Education

MSc in Computer Science and Engineering
Kongens Lyngby, Denmark

TECHNICAL UNIVERSITY OF DENMARK (DTU)
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
Florence, Italy

UNIVERSITY OF STUDIES OF FLORENCE (UNIFI)
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
Florence, Italy

SCIENTIFIC HIGH SCHOOL
September 2014 - June 2019

Projects

DAPM, Distributed Architecture Process Mining
DTU

UNIVERSITY PROJECT
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.
- **Technology:** Docker, Typescript, React, C#

Four Tank MPC, Model Predictive Control
DTU

UNIVERSITY PROJECT
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.
- **Technology:** MPC, Matlab, CasADi

Authentication, ACL and RBAC
DTU

UNIVERSITY PROJECT
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

Diabetes Management Java 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

Snap4All Android Java app UNIFI

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

DataScience project of comparison of Algorithms and Data Structures UNIFI

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

Clone website newspaper Il Post UNIFI

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.