# Alessio Sordo

Computer engineer

Born in 1998 | Italian | Marital status: Single
linkedin.com/in/alessio-sordo | alesordo.com

## Education

**University of Ferrara** — Ferrara, Italy
*Master of Science in Computer and Automation Engineering* — *March 2021 – December 2023*
- Majors: Industry 4.0 and IoT | Minor: Artificial intelligence

**NOVA School of Science and Technology** — Lisbon, Portugal
*ERASMUS+ exchange semester* — *September 2021 – February 2022*

**University of Ferrara** — Ferrara, Italy
*Bachelor of Science in Computer and Electronic Engineering* — *September 2017 – February. 2021*

## Experience

**Computer engineering intern** — April 2023 – August 2023
*Nimbus Research Centre* — *Cork, Ireland*
- Developed "Landmark Environmental", a Proof-of-Concept IoT project commissioned by an external client
- Learned to work with new technologies under supervisors' guidance, utilizing Kanban for project management
- Successfully completed the product, looking forward to publish a research paper related to it

## Technical Skills

**Languages**: C, Python, JavaScript, Java, HTML, CSS, Bash
**Frameworks**: ESP-IDF, Tensorflow, Keras, Hyperledger Fabric
**Developer Tools**: Git (GitHub, GitLab), Docker, Jupyter Notebooks, IDEs (VS Code, IntelliJ IDEs, Eclipse), Vim
**Libraries**: scikit-learn, pandas, NumPy, Matplotlib

## Projects

**Landmark Environmental - Master thesis project** | *C, ESP-IDF, Python, scikit-learn, Git, JavaScript*
- Validated the architecture of an Internet of things device based on the ESP32 microcontroller and developed its firmware in C
- Integrated LoraWAN communication on the device with The Things Stack server and configured a cloud platform with dashboards, alerts and data retrieval functionalities using JavaScript and Python
- Developed machine learning models with scikit-learn to predict bacteria levels in wastewater using only temperature data

**StuNet** | *Python*
- Implemented a Python script to score students' homework using a pre-trained machine learning model and developed a group-making greedy algorithm for group assignments in Python
- Won a prize with a team of 4 at the HackUPC hackathon in Barcelona

**Traffic sign detection system** | *Python, Tensorflow, Keras, scikit-learn*
- Trained a deep learning model to classify and locate traffic signs in pictures
- Achieved a 91% classification accuracy and a 95% regression Mean-IOU

**TaskEase** | *JavaScript, HTML, CSS, MongoDB, Docker*
- Developed a full-stack web application for project management with Kanban board interface, using the MEAN stack (MongoDB, Express.js, Angular and Node.js)
- Integrated backend unit testing and application containerisation with Docker

**JAA** | *Java, JavaScript, HTML, CSS, Bootstrap, SQL*
- Developed a full-stack web application demo for car sharing and long-term car leasing using Java for the backend, SQL for the database, HTML, CSS and Bootstrap for the frontend

## Additional Information

**Languages proficiency**: Italian (Native), English (C1), Portuguese (A2), German (A1)
**Hobbies and activities**: volunteer at Erasmus Student Network (ESN); football referee at Italian Referee Association (AIA); student council vice-president at the University of Ferrara
**Available to relocate abroad**