

Joshua Moelans

Education

University of Antwerp

Master in computer science - Software Engineering

Expected graduation June 2024

Student representative

Bachelor in computer science

Graduated Cum Laude, June 2022

Work experience

University of Antwerp

Student Software Developer

May 2023 - present

- Improving workflow of keylogger tool for scientific research
- Added dynamic writing-source graph visualization

Keysight Technologies - Ghent, Belgium

July 2023 - September 2023

R&D intern

- Working on proof-of-concept passive component synthesis flow in ADS through Python

Open Summer of Code /NCCN - Brussels, Belgium

July 2022

Student Software Developer

- Designed and built a portable front-end application to live-track critical goods
- Re-engineered networking code for performance increase

Volunteering

Hujo (Sesam Open-IT)

2021 - present

- Teaching children STEM by introducing them to code using Lego Mindstorms
- Developing programming interface for Arduino Uno robot programming

University of Antwerp (Tutoraat)

2020 - present

- High school maths and programming (C++) tutor

Skills

Programming Languages: C++, Python, JavaScript, C#, Java

Technologies: Flask, Git, PostgreSQL, JUnit, PyTest, QT, .NET

Languages: English (full professional), Dutch (native), German (basic), French (basic)

Projects

Block-based programming interface | Python, JavaScript | solo project

- Designed and implemented a block-based programming web-interface from scratch
- Created a compiler, translating block networks into code, driving an Arduino uno-controlled robot

Recommendation algorithm explorer | Python, JavaScript, PostgreSQL | team lead

- Created a web-app to compare recommender-algorithms, allowing for use of custom data sets
- Leading a team of 5, planning out work and keeping track of progress
- Designed and implemented the database and accompanying front-end interactions

Model-driven Port Simulator

- Designed domain-specific language modelling maritime transport
- Created 3d-rendered visual representation of simulator components
- Work was presented to the Port of Antwerp-Bruges