

# Etienne Malaboeuf

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in etienne-malaboeuf

*Student Software Engineer - High Performance Computing*

## EDUCATION

### Graduate School of Engineering (of the University of Nantes)

Nantes, France

*M.Sc in Computer Science (5<sup>th</sup> year out of 5), ranked 2/72*

*Expected Graduation, September 2022*

### University of Nantes

Nantes, France

*A two-year technical degree in computer science*

*June 2019*

## EXPERIENCE

### Capacités, Engineering company

Nantes, France

*Student Software Engineer, Student job*

*August 2021 - September 2021*

- Worked on a C/C++ project for probabilistic, graphical and relational models
- Refactored modules of the codebase and enforced coding standards (tests and CI/CD pipeline, style and git workflow)

### Ulster University

Londonderry, Northern Ireland

*Software Engineer Intern*

*May 2021 - August 2021*

- Designed and developed an Unreal Engine 4 simulation for human-computer interaction (in C++)
- Extensive use of Amazon Web Services, offloaded the simulation in the cloud (streaming the viewport to the user)
- Owned the design and development of the project from backend to frontend
- Simulated facial animations using visemes

### Soleneos, Centrale Nantes business incubator

Nantes, France

*Software Engineer Intern*

*June 2020 - August 2020*

- Developed and implemented a solution aimed at near-complete automation of 3D model construction and meshing in Python
- Integrated a simulation framework for high performance computing (Salome + In house codebase)

### General Transmissions

Les Herbiers, France

*Software Engineer Intern*

*April 2019 - July 2019*

- Designed and implemented a solution for business intelligence data visualization
- Worked closely with production the department manager for accurate functionality requirement

## RELEVANT COURSES & SKILLS

- Software Engineering
- High Performance Computing
- C/C++
- Linux
- Python
- SQL

## SELECTED PROJECTS

### Dynamic Positioning for Offshore and Maritime Industry

*October 2020 - May 2021*

*Collaborative work with D-ICE Engineering*

- Developed a man-machine interactive solution for dynamic positioning data generation and visualization
- Used d3js and L<sup>A</sup>T<sub>E</sub>X in the PDF report generation backend

### Personal Archive of Algorithm and Methods

*September 2019 - Present*

- Library containing most of the algorithms and data structures learned and/or encountered during the past 2 years
- Selected modules: small BLAS, concurrency related, multiple PRNG and cyphers, multiple containers, image/mesh file format readers, signal processing, a message passing system for C++ and a small ray tracing based renderer
- Developed using C++14 using Google C++ code quality standards

### PolyHash Code

*October 2019*

- Competition between students based on the Google Hash Code
- Developed a solution to an optimization problem using Python. Graph theory and research papers were used

## ADDITIONAL

- Native French speaker, proficient in English (C1 / TOEIC 970/990), notion of Chinese
- Interested in small drones, “multi-rotors” with “*Point Of View*”