Etienne Malaboeuf

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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 (4^{th} 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 LaTeX 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*"