

# Rodolphe Thienard

HPC Student

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## Experience

### 1st place at 2nd edition of Teratec Hackathon

Europe

HPC competition to port and optimize applications on AWS Graviton3E

2024

- Optimization of Riemann Zeta function
- Portage of EDF application, Telemac

### End-of-studies internship

EMG2

Technological validation of hardware integration of a POSIT GPGPU core on FPGA for HPC/HPDA and Deep learning applications

2024

- FPGA, RISC-V architecture
- Posit & IEEE-754 standard benchmarking
- HPC and AI applications

### Master 1 Internship The French Atomic Energy and Alternative Energies Commission (CEA)

Designing a user-space thread scheduler for MPC in Rust

2023

- User-space thread scheduling
- Rust programming language

### Bachelor Internship

Laboratory, UVSQ

Development of a prototype as part of the cod-prof project with INSEE

2022

- Python scripting

## Projects

### Sudoku solver

Paris-Saclay University

Developing an application for solving sudokus of sizes 2x2 to 8x8.

Using the Wave-Funtion Collapse algorithm and the CUDA language.

2024

- CUDA
- OpenMP Target
- Data sharing optimization

### Programming project

Paris-Saclay University

Validation of Modular Assembly Quality Analyzer and Optimizer (MAQAO) metrics

2022

- Micro-benchmark pour valider les mesures
- OpenMP
- x86 Assembler

## Skills

**Languages** C/C++, Rust, x86 Assembler, CUDA, Bash, Python, Zig

**Spoken** French, English

**Languages**

**Interests** Volley-ball competition, Play music

## Education

### Master High Performance Computation and Simulation

Paris-Saclay University

2022 - 2024

### Computer Science Bachelor's Degree

Versailles Saint-Quentin-en-Yvelines University

2019 - 2022