# José Filipe **Ferreira**


Computer Software Engineer · High Performance Computing

*Real, Braga, Portugal*

(+351) 919 103 819 | jose.filipe.matos.ferreira@gmail.com | JoseFilipeFerreira | jfferreira


## Education

### Minho University

*Braga, Portugal*

Masters in Computer Software Engineering

*2020 - PRESENT*

- Parallel and Distributed Computing
  - Parallel Algorithms: 15/20
  - Parallel Computing Paradigms: 16/20
- Graphical Computing
  - Visualisation and Ilumination I: 17/20

### Minho University

*Braga, Portugal*

B.S. in Computer Software Engineering (15/20)

*2017 - 2020*

- Computer Architectures: 16/20
- Graphical Computing: 19/20

## Skills

**Programming** C, C++, CUDA, GLSL, Bash, Python, Java, Rust, SQL

**Tools** Git, Linux, LaTeX, Docker, CI/CD

**Languages** Portuguese (native), English (C2 with Cambridge CPE)

## Extracurricular Activity

### ENEI 2020

*Braga, Portugal*

Organization Member, Graphic Designer and Photographer

*Feb. 2020*

- National Meeting of Computer Science Students focused on Talks and Workshops with various Companies
- Gained experience in Leading Teams and Organizing Large Events

### CeSIUM Collaborator @ Image Department

*Braga, Portugal*

Graphic Designer and Photographer

*Set. 2018 - Nov. 2020*

- Gained experience working as a team in a asyncronous environment

### Oficial MiEI Discord

*Discord*

Co-Creator and Administrator

*Feb. 2018 - PRESENT*

- A comnutity with 1700+ members focused on helping and mentoring new students

## Projects

### Dotprod (University Project)

*GitHub Repository*

C, Vectorization, CUDA

*Grade: 15/20*

- Matrix Multiplication Optimization exploring Memory Acess ptimizations, Vectorization and CUDA
- Gained experience on Programming Heterogeneous Platforms using CUDA

### Parallel Raytracer (University Project)

*GitHub Repository*

C++, Paralelization

*Grade: 14/20*

- Raytracer Performance Optimization using a Thread Pool, Work Queue and Bounding Volume Hierarchy

### Terrain Generation (University Project)

*GitHub Repository*

GLSL

*Grade: 17/20*

- Terrain Generation based on GLSL shadders and height maps

### Engine (University Project)

*GitHub Repository*

C++, OpenGL, XML

*Grade: 19/20*

- Generic Graphic Engine capable of efficiently rendering any kind of scene defined in a XML configuration file