José **Fernandes**

Software Engineer

Info

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Braga, Portugal

josé-fernandes

Languages

(Portuguese - Native Language)

(English - Fluent)

Programming Languages

C | C++ | Python | Java | GLSL | Bash

Tools/Frameworks/API

OpenGL | CUDA | OpenMP | OpenMPI | PThreads | ImGui | CMake | Linux | Git

Technical Skills

Multithreading | HPC | Low Level Programing | Profilling | Benchmarking | 3d Math | Algorithms | Data-Structures | Raytracing | Linear Programming | Shaders

Activities

- Inter-University Programing Marathon, 2017
- Heartbits Hackathon, 2017
- Hacktivate Hackathon, 2018
- MAD Game Jam ESMAD, IPP, 2020

Other Interests

- Bouldering
- Hardware
- Swimming
- Reading

Portfolio

Check out my portfolio at felfit.github.io or with the QR code.

WORK EXPERIENCE

Aug 2022 - Today

C++ Engineer — Remote

ExeedMe

Assisted in research and development on Blockchain technology.
Implemented C++ libraries and optimized new cryptographic algorithms

Technology/Tools: C++ , CMake , Perf , Boost

EDUCATION

2016-2022

Integrated Masters in Informatics Engineering

Braga, Portugal

Minho University

Computer Informatics, Software Engineering

Specialization: Parallel and Distributed Computing and Computer Graphics

Computer Graphics: Shaders, Computer Vision, Ray-traced Global Illumination
Parallel and Distributed Computing: GPU and CPU Architectures, benchmarking, profiling, multithreading, instruction level parallelism, working on a distributed cluster environment
Bachelors: Algorithms and Complexity, Algebra, Calculus, Databases, Distributed Systems, Object-Oriented, Imperative and Functional Programming
Grade Average: 17/20
Dissertation Grade: 18/20

HIGHLIGHTED UNIVERSITY PROJECTS

Masters Thesis

Real Time Rendering of Particle Based Fluids

This project saw the implementation of 2 techniques for rendering fluids:
- a screen-space implementation for fast performance with good visual fidelity
- a voxel-based implementation with raytraced reflections, refractions and real-time caustics

Technologies: C++ , GLSL , OpenGL , Python , ImGui

Industry Collaboration

Accenture - Fleet Management Software

Agile project for supervised by Accenture in a 12 man team for university during my masters with the intent to prepare us to the business world.
Worked on a Python simulator which would create big amounts of realistic data for testing the application which interfaced with GCP through Pub/Sub.
Project finished with good feedback from project owner and professors.

Technologies/Tools: Python , GCP , Google Firestore