José Fernandes

Github : github.com/Felfit josefernandesdev@gmail.com

LANGUAGES

• Portuguese, Native Tongue • English, Near Native / Fluent

EDUCATION

Mestrado Integrado em Engenharia Informática, Minho University
Computer Informatics, Software Engineering
Specialization: Parallel and Distributed Computing and Computer Graphics
2016-2022 Grade Average: 16/20

TECHNICAL SKILLS

Languages : C/C++, C#, Java, GLSL, CUDA, Python, Haskell
Computer Graphics : Understanding of the Rendering Pipeline, Knowledge of 3d Mathematics and Transformations, Raytracing, OpenGL, Dear ImGui
Parallel Computing Skills : Understending of ILP and SIMD, Multithreading and Multi-CPU, Experience in an HPC, OpenMP, OpenMPI and PThreads, Profiling and Benchmarking
Tools/Framework : Visual Studio, GCC and GDB, CMake, ASP.Net Core, Linux, Ansible, Unity, MySQL, SQL Server, Neo4j, MongoDb
Others : Imperative, OO and Functional Paradigms, Linear Programming, Algorithms and Data-structures, Regex, UML, GCP, Git

HIGHLIGHTED PROJECTS

Check out my portfolio for screenshots and more details at: felfit.github.io

Real-Time Rendering of Particle Based Fluids **2021-2022**

My masters' dissertation which covers the implementation of a real-time fluid renderer on the GPU using a preexisting simulation.
The dissertation foresaw the implementation of 2 techniques for rendering fluids:

- a screen-space implementation using quads and smoothing operations.
- a voxel-based implementation with raytraced reflections, refractions and real-time caustics
- **Technology/Tools:** Python, C++, GLSL, OpenGL, Lua

Project in Informatics Engineering **2021**

Worked in a project for Accenture with their close supervision in a university project during my masters with the aim to prepare us to the business world.

- **Technology/Tools:** Python, GCP, Google Firestore

Iterative Pathtracer **2020**

An Iterative Pathtracer supporting multiple rays with multiple bounces, glossy materials and ray accumulation.

- **Technology/Tools:** CUDA, OpenGL, GLSL, NVIDIA Optix

ADDITIONAL ACTIVITIES

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