# Diogo Gonçalves

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# **Employment**

#### **Bsolus**

### October 2020 - November 2021

Software Engineer

- Designed and developed a Marketing Automation platform based on a microservices architecture with horizontal scalability. Developed the CI/CD pipeline integrating with the AWS.
- Maintained E-commerce platforms.
- Techonologies utilized included: NestJs, TypeScript, Docker, SQL, MongoDB, Terraform, GCP, Bitbucket, Jira, Git, PHP, SQL.

#### **Education**

#### **University of Minho**

**October 2016 – April 2022** 

- Master's degree in Informatics Engineering specialized in Computer Graphics and Parallel & Distributed Computing.
- Bachelor's degree in Informatics Engineering, July 2019.

#### **Technical Experience**

### **Projects**

- Ray tracer (2020). Implemented Ray tracing algorithms in C++ and CUDA, optimized the implement by adding features such as russian roulette, Parallel BBVH, multi-threading.
- Interactive Wind (2020). Developed a real time realistic wind simulation in GLSL. Focus of the project was to research known implementations of wind interaction with multiple objects and combine them into a realistic solution to integrate with an engine using shaders.
- **Procedural Terrain Generation** (2019-2020). Developed a real time procedural physically accurate terrain generator. The focus of the project was to research and implement graphical algorithms published on research papers. Then combine them into a procedural terrain generator using shaders.

## **Technical skills**

- Advanced C++; C;
- Intermediate GLSL; Bash; Python;
- Basic Vimscript; Lua; CUDA;

#### Languages

- Portuguese Native speaker
- English C1 level