

# Ricardo Ribeiro

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Hi, my name is Ricardo, I'm a generalist programmer (with a tendency to low-level like 3D, compilers, ...) if it needs to be done I'm up for the challenge. I'm able to learn quickly and I'm very active outside of working hours always learning new stuff.

**Interests:** systems prog, performance, DOD, everything real-time 3D, C, Zig,...

## TECHNICAL SKILLS

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**Languages:** C/C++, Go, Python, Java, SQL (Postgres), OpenGL

**Frameworks:** Spring, Apache Airflow

**Developer Tools:** Linux, Git, Docker, Kubernetes, Ansible, Bazel

## EXPERIENCE

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### Software Engineer

Feb. 2022 – Now

*CriticalTechworks (BMW)*

*Porto, Portugal*

- Helping build reprocessing platform for Autonomous Driving for BMW
- Implemented a new feature for managing issues on car logging sessions to save all developers' reprocessing time
- Worked on a Postgres mirror from MaprDB using Foreign Data Wrappers, improve logging on an open-source postgres extension in C. Introduced static type checking improving Python Airflow code quality
- **Tech:** Java Spring Backend, C++ Automotive (CAN, ETH, FlexRay...), Python, Apache Airflow, Ansible, Helm, Openshift, Zull CI, Docker, PostgreSQL, MaprDB, Grafana, Prometheus

### Software Engineer Intern

Feb. 2020 – June 2020

*Faro Technologies*

*Porto, Portugal*

- Designed system from scratch for a back office web app to manage product life cycle of desktop apps
- Developed frontend, backend and database modeling
- **Tech:** React (Typescript), .NET Core, EF Core, Docker

## PROJECTS

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### 3D Engine | C++, OpenGL

- 3D engine capable of doing basic rendering, framebuffers, lighting
- OBJ loading using tinyobjloader
- Custom arena allocator and math library
- Using ImGui, Cmake, GLFW

### Self Driving Toy | Python, Arduino

- Implemented Python Kivy Server on Android
- Arduino Motor controller
- Basic Motion Control using Otsu Binarization

### Greenlight API | Go, Postgres

- Implemented a REST API in golang for managing movies
- Custom error handling
- Postgres database integration

## EDUCATION / CERTIFICATES

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### Machine Learning Specialization

July 2022

*Coursera*

### Bachelor of Informatics Engineering

Sep. 2017 – Feb 2021

*Instituto Superior de Engenharia do Porto*

*Porto, Portugal*

### IELTS Certificate

June 2021

*British Council*

*Porto, Portugal*