

# JÚLIO MIGUEL BRAZ DA COSTA SILVA

## Software Engineer

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LinkedIn julio-miguel-silva

Website <https://jmbcs.github.io/portfolio/>

📍 Portugal

Github jmbcs



## Work Experience

### Mid Software Engineer

#### Wavecom

📅 Jan 2023 – Present

📍 Portugal

- Contributed significantly to the full development lifecycle of a pioneering product, from ideation to production.
- Developed **Helm Charts** to facilitate the seamless deployment of the product on **Kubernetes** infrastructure.
- Implemented features by engaging with clients and understand their requirements.
- Developed microservices in **Python** and **Golang**.
- Implemented **Protocol Buffers** and **gRPC** for microservices communication.
- Extensively worked in query optimization for faster dashboard loading in **Grafana**.
- Designed and implemented **ETL pipelines** using **Telegraf**.
- Built **REST APIs** to communicate with **SQL** and **NoSQL** databases.
- Engineered data analytics algorithms.
- Developed Docker images and orchestrated deployments with **Docker Compose**.
- Utilized the **ONVIF** protocol to extract detections from camera metadata streams.

### Junior Software Engineer

#### Wavecom

📅 Jan 2021 – Jan 2023

📍 Portugal

- Contributed to funded projects and the full development lifecycle.
- Developed a monitoring framework for **High-Performance Computing (HPC)** with **Grafana**, **VictoriaMetrics**, and **Python**.
- Leveraged **SQL** and **NoSQL** databases (**PostgreSQL**, **VictoriaMetrics**, **Elasticsearch**).
- Automated tasks using **Makefiles** and **Bash scripts**.
- Refactored code to improve readability and performance.
- Evaluated new technologies for project suitability.
- Used **version control systems** for codebase management.

## Education

### Master in Electronics/Telecommunications Engineering

#### University of Aveiro

📅 2014 – 2020

📍 Aveiro, Portugal

#### Thesis - Recovery and Identification of Moments

- Development of a **Python** automatic image retrieval system capable of associating images to moments described in text.
- Grade: 19/20

## Relevant Links

- BigHPC Project: <https://bighpc.wavecom.pt/>
- BigHPC Speaker: <https://www.youtube.com/watch?v=5gaivo9DD0>
- Thesis Link: <https://ria.ua.pt/handle/10773/30553>
- Thesis Paper : [https://ceur-ws.org/Vol-2696/paper\\_91.pdf](https://ceur-ws.org/Vol-2696/paper_91.pdf)

## Tech Skills

### Programming Languages

Python Golang

### Web

HTML HTMX CSS  
Tailwind REST APIs

### Databases

PostgreSQL SQL/NoSQL  
VictoriaMetrics PromQL

### Data serialization

JSON CSV Protobuf YAML

### Python Libraries

FastAPI Pydantic Django  
 SQLAlchemy Pandas OpenCV

Requests

### Others

Prometheus Git Telegraf  
Linux Bash/Shell gRPC  
SQLC Grafana Helm Charts  
Docker/Docker Compose vmAlert

## Languages

Portuguese (Native) English (Fluent)