

JÚLIO MIGUEL BRAZ DA COSTA SILVA

M.Sc Electronics and Telecommunications Engineering

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Portugal

julio-miguel-silva

jmbcs



PORTFOLIO LINK

<https://portfolio-julio-silva.streamlit.app/>

EDUCATION

Master in Electronics/Telecommunications Engineering

University of Aveiro

2014 - 2020

Aveiro, Portugal

Thesis - Recovery and Identification of Moments

Grade: 19/20

2019-2020 (1 year)

Aveiro - Portugal

- Development of a python automatic image retrieval system capable of associating images to moments described in text.

WORK EXPERIENCE

Research and Development Engineer (Hybrid)

Wavecom

Jan 2021 - Present Time

Aveiro, Portugal

- Led decision-making across diverse **funded projects** from inception to production.
- Designed and implemented **ETL pipelines** with **Telegraf**.
- Developed microservices in **Python** and **Golang**.
- Automated workflows using **Python** and **Shell** scripting.
- Built **APIs** for **SQL** and **NoSQL** databases.
- Engineered algorithms for **data analytics**.
- Managed databases, including **PostgreSQL**, **Victoriametrics**, and **Elasticsearch**.
- Implemented **Protocol Buffers** and **gRPC** for microservices communication.
- Developed **Docker** images and orchestrated applications using **Docker Compose**.
- Implemented **Version Control Systems** to ensure code integrity.
- Developed a monitoring framework for **HPC** systems with comprehensive **Grafana** dashboards.
- Collaborated with global partners.

LANGUAGES

Portuguese (Native)

English (Fluent)

TECH SKILLS

Programming Languages

Python

Golang

Databases

SQL/NoSQL

PostgreSQL

TimescaleDB

Elasticsearch

Victoriametrics

Prometheus

Promscale

PromQL

pgAdmin

Dashboarding

Grafana

Kibana

Containerization and Orchestration

Docker

Docker Compose

Data serialization

JSON

CSV

Protobuf

YAML

Others

Git

Telegraf

Linux

Bash/Shell

gRPC

PYTHON EXPERIENCE

Software Development and APIs

FastAPI

SQLAlchemy

Psycopg

Aiohttp

Pydantic

Asyncio

Requests

Data Analytics

HPC

Pandas

Seaborn

Numpy

Matplotlib

Tensorflow

Computer Vision

ImageAI

OpenCV

Ultralytics

RELEVANT LINKS

- BigHPC Project:** <https://bighpc.wavecom.pt/>
- BigHPC Speaker:** <https://www.youtube.com/watch?v=5gaiovo9DD0>
- Thesis Link:** <https://ria.ua.pt/handle/10773/30553>
- Thesis Paper :** https://ceur-ws.org/Vol-2696/paper_91.pdf