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

- 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**.
- Operated databases systems 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.
- Worked across diverse **funded projects** from inception to production.
- 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

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