Gonçalo Artur Gaspar Alves

Data Scientist

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Experience

March 2025-Present — **Educational Assistant at a High School**, Lycée Technique de Lallange, Esch-sur-Alzette
Mainly assisting in administrative tasks. I have launched a few initiatives to automate some of these tasks using VBA macros and database normalization. Also developed a program that tracks student delays, dispenses sanctions for students with multiple delays, and provides statistics on the delays to the school's rectorate.

2024-2025 — **Research on Subject Retrieval using Deep Learning**, *6 months*, Luxembourg Centre for Systems Biomedicine, Esch-sur-Alzette
Conducted research and co-authored a scientific article on subject retrieval in biomedical imaging, using contrastive learning techniques on large-scale MRI datasets..

2024 — **Master Thesis in MRI and Deep Learning**, *6 Months*, Luxembourg Centre for Systems Biomedicine, Esch-sur-Alzette
Completed my Master's thesis under the supervision of Dr. Andreas Husch, focusing on the spatial distribution of brain tumors and subject retrieval using deep learning techniques applied to large-scale MRI datasets.

2023 — **Student Job**, *3 Months*, Luxembourg Centre for Systems Biomedicine, Esch-sur-Alzette
Collected and curated multiple large MRI datasets, converting them to the appropriate industry-standard format. Developed a graphical user interface (GUI) to streamline the dataset download process.

Education

2024 — **Master in Computational Biology**, *University of Luxembourg*, Esch-sur-Alzette
Completed my Master's degree in Molecular and Computational Biomedicine, with a focus on Artificial Intelligence applied to large datasets and Data Analysis.

2022 — **Bachelor in Biology**, *University of Luxembourg*, Esch-sur-Alzette
Completed my a Bachelor's degree in Life Sciences, with a focus on Biology, with Honors.

2018 — **Secondary Education**, *Lycée Technique pour Professions de Santé*, Luxembourg
Secondary Education Diploma in Life Sciences with Honors.

Skills

Tech skills
IDEs (VS Code) / Git / High-performance computing / Containerization / Linux / PostgreSQL / CI/CD (Jenkins)

Programming Languages
Python / Bash / JavaScript / HTML / CSS / SQL

Machine Learning & Deep Learning
Computer Vision / Subject Retrieval / Contrastive Learning / DL architectures (LSTM, CNN, Transformers) / Regression / Classification

Python Data Science Libraries
Pandas / NumPy / PyTorch / Nibabel / Matplotlib / Seaborn / SciKit-Learn / OpenCV / Plotly / FireDucks / Weights and Biases

Data Analytics & Visualization Frameworks
Apache Spark (Pyspark) / Google Cloud / Power BI

Server Administration
Linux based servers

Languages

Portuguese (fluent), Luxembourgish (fluent), German (fluent), French (fluent), English (fluent), Spanish (proficient), Japanese (conversational)

Github: Github/Bananahopper   **LinkedIn:** Gonçalo Gaspar Alves   **Site:** goncalogaspar.me