

Nuno Agostinho Miranda Mendes

Data Engineer & Infrastructure

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SUMMARY

Computer Engineering student with practical experience in relational database modelling, SQL query optimisation, and backend systems development. Proficient in Python, PostgreSQL, and configuring services on Linux environments. Certified *Associate Data Engineer in SQL* (DataCamp). Eager to contribute to enterprise data infrastructure and network services with robust, well-documented systems.

SKILLS

Databases & SQL : PostgreSQL, MySQL, Snowflake — data modelling, schema design, complex queries, joins, views, stored procedures, optimisation

Data Engineering : Data warehousing, ETL, data pipelines, data validation and reconciliation

Python : Scripting, automation, file processing, Pandas

Servers & Infra : Linux, Nginx, Apache, Docker, CI/CD, Git

Backend : Java, Spring Boot, Hibernate, REST APIs, Redis

Other : C, C++, Computer Networks, Software Architecture, technical documentation

Languages : Portuguese (Native), English (Advanced)

EXPERIENCE

CSS — C Software Solutions

2025 – Present

Co-founder & Backend Developer

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- Designed and optimised **relational database schemas in PostgreSQL and MySQL**; wrote complex queries, views, and stored procedures to ensure data accuracy and performance.
- Built **data aggregation and reporting endpoints** in Java/Spring Boot, reconciling data from multiple operational sources for client-facing reports.
- Developed **Python scripts** to automate routine tasks and custom file-processing workflows; containerised services with Docker and set up CI/CD pipelines with full technical documentation.

NASA Space Apps Challenge

2025

Participant — Farm Navigator

Remote

- Built a **data pipeline** ingesting, cleaning, and transforming NASA open datasets with a geospatial interface — working prototype delivered in 48h in a multidisciplinary team.

PROJECTS

Vector Mobility — Intelligent Fleet Management & Vehicle Tracking Platform

2026 – Present

- Building the real-time ingestion and streaming pipeline for a **multi-tenant vehicle telemetry platform**: GPS, OBD-II and sensor data published over **MQTT** and bridged into **Kafka**, with versioned schemas and partitioning by device/tenant.
- Designing **Go** stream consumers that validate, enrich and aggregate telemetry (windowed metrics, geofencing); modelling **TimescaleDB** hypertables with continuous aggregates and retention, provisioning the full stack locally via **Docker Compose** with consumer-lag and dead-letter monitoring.

ft_transcendence — 42 Luanda

2025

- Full backend in Spring Boot: REST API with authentication (JWT, OAuth2), user/course/progress management; **PostgreSQL** persistence, Redis cache, Prometheus/Grafana observability, orchestrated in Docker.

EDUCATION & TRAINING

ISPTEC — Higher Polytechnic Inst. of Technology and Sciences

2021 – Present

Bachelor's Degree in Computer Engineering (In Progress)

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42 Luanda

2024 – 2026

Common Core — Software Engineering (C/C++, algorithms)

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DataCamp

2026

Associate Data Engineer in SQL (28h)

Online