

# Luis Da Silva

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## Professional profile

Expert software development engineer with over 6 years of experience in data engineering, machine learning engineering and full-stack development, with a background in healthcare, economics and retail. Happy to tackle new challenges and get out of the comfort zone. Gets deeply involved with every company he works with and makes sure targets are met to high standards.

## Core competencies

- Strong IT skills. Experienced in technologies including **Python, JavaScript, Typescript, SQL, Go, Rust, R, Bash** and **Powershell**.
- **Team player**. Experienced in leading a team of both technical and non-technical people, coordinating their efforts and achieving the committed objectives.
- Excellent **machine learning** skills, having worked in a wide range of professional and personal projects from linear regressions and tree-based models to genetic algorithms and neural networks, including natural language and reinforcement learning.
- Knowledgeable with relational, non-relational and graph database technologies such as **Trino (Presto), MySQL, PostgreSQL, Neo4j and MongoDB**.
- Experience in working with high-capacity parallel computing systems through **PySpark, Kubernetes** and **Docker**, deployed in **AWS** and **GCP** through **Terraform**. Additional experience working with open-source frameworks including **Airflow, Ranger, Superset and Allure**.
- Design and delivery of Rest **APIs** and dashboards using technologies like FastAPI, Flask, Django, React, NextJS and NestJS to communicate results and generate insights.

## Experience

[Lagrange Systems](#). Remote, UK.

Apr 2023 – Present: **Founder & CEO**

Developed from scratch an AI platform for restaurants.

- Developed most of the technology involved, including platform design (microservices architecture), platform infrastructure (DevOps on GCP with Terraform), data engineering (databases, ETL, API integrations), development of AI components (forecasting using neural networks, planning with reinforcement learning, LLM integration), backend development and frontend development and design.
- Team building and management.
- Directed sales and marketing efforts.
- Managed customer onboarding and support.

[EMIS Health](#). Remote, UK.

Feb 2022 – Apr 2023: **Tech Lead - Senior Software Development Engineer**

July 2021 – Jan 2022: **Senior Software Development Engineer**

August 2020 – June 2021: **Software Development Engineer (Data Engineer)**

*Support the development of an in-house petabyte-scale data-lake, delivering terabytes of data daily to partners and delivering machine learning algorithms on top of it to contribute to healthcare.*

- Managed one of the most profitable products of Emis-X, leading a team of 10 members and delivering over 10 projects, thus increasing the product's revenue 5 times.
- Improved the time-frequency in which clients could get new data by a factor of 14 while only using 1.8x compute power by re-designing and re-implementing the core data processing pipeline.
- Line managed 7 team members and interviewed, hired and successfully onboarded 3 people who have been identified as high-potential individuals.

- Improved team's productivity by creating a local replica of each of the main components of the development cloud environment (Trino, AWS, Airflow and multiple proprietary APIs) using Docker to aid development and better testing, thus increasing the team's confidence and allowing techniques such as chaos testing.
- Adapted and integrated the first third-party machine learning algorithm in the EMIS platform, serving thousands of queries a day and processing over 40TB of data.
- Development heavily focused on AWS, continually using infrastructure as code (Cloudformation) and services like IAM, EC2, S3, ECS, ECR, SQS, CloudWatch, Chalice, CodePipeline and CodeBuild.
- Support core codebase of SQL views used by the analytics division along with direct clients and partners.

### Thought Provoking Consulting. London, UK

August 2019 – August 2020: **Data Scientist**

*Produce bespoke software for retail clients that allows them to optimise their internal and external processes and facilitates decision-making.*

- Designed, developed, and deployed a Python framework to automate the modelling process of a machine learning model used to optimise the discount to be taken out of products during markdown periods while reaching a sales target. Reduced the Mean Squared Error by 75% and training time by 79% by restructuring the previous approach.
- Created an ML web scraping and data analysis framework that interprets a client's website and reports over 100 potential issues including pricing mistakes and missed profit opportunities. With an average of just under 2 issues per product page, clients reported increased conversion rates after acting on them.
- Managed and collaborated closely with a team of machine learning and business consultants to both understand business requirements and ensure an adequate solution is developed.

### Bigvene. Caracas, Venezuela.

September 2017 – October 2018: **Co-Founder**

*Co-founded an academic research and retail consultancy company in Venezuela which grew to having 12 members and managing up to 3 projects at a time.*

- Led 2 separate teams in projects involving data cleaning, processing, and re-coding data on the behaviour of people against political propaganda.
- Handled customer relationships, sales, contract negotiation, finances, and marketing.
- Developed projects such as bespoke demand estimation, inventory planning, price adjusting and competitor pricing monitoring tools for e-commerce retailers using Python and SQL that in conjunction were able to help manage a highly inflationary environment like Venezuela.

## Formal education

2018 – 2019: **MSc Data Science** (University of Manchester, UK)

- First Class Honours. Top 5% of the class.

2013 – 2017: **BSc Economics** (Universidad Católica Andrés Bello, Venezuela)

- First Class Honours. Top 5% of the class.

## Links

- LinkedIn - <https://www.linkedin.com/in/luis-da-silva/>
- Github - <https://github.com/luisds95>
- Portfolio - <http://luisdasilva.io/>

## Additional information

- Languages: Spanish (native), English (fluent) and Portuguese (intermediate).

**References available on request**