Sebastian Franco Ulloa, Ph.D.

Senior Al Engineer

With 7 years of programming experience and a Ph.D. in biocomputational sciences, I specialize in developing Al-powered pipelines to democratize data through streamlined ingestion, analysis and visualization. My past positions as an Al engineer, data scientist and bioinformatician have honed my skills in statistical modeling, industrial software development, cloud computing and project/team management. I thrive in spaces where I can learn new technologies and spar ideas with my colleagues. I approach challenges with an analytical and compassionate mindset, actively seeking diverse perspectives to make well-informed decisions. I describe myself as a determined problem solver with a sense of humor, while my peers see me as disciplined, goal-oriented and caring.

Contact

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- in sebastian-franco-ulloa
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- Oslo, Norway

Skills

Statistical analysis

Machine learning

Data visualization

Team management

Storytelling

Teaching

</> Programming

Python

DBT/SQL

GCP/AWS

Terraform

Docker

Apache Airflow

Apache Beam

Languages

Spanish

English

Italian

Norwegian

Work Experience

Senior Al Engineer

DN Media Group, Norway,

From 2025

Designed, implemented and maintained a data platform in GCP for batch and event-based data sources. Built data products using DBT for the organization's stakeholders. Developed end-to-end RAGbased applications for data exploration using natural language. Deployed and maintained web applications on GCP, optimized CI/CD workflows, and led architecture decisions for scalable, secure, and automated AI solutions across the organization.

Senior Data Scientist - Consultant

Oslo University Hospital - Cytofit. Norway.

2024 2023

Developed a Python web application to clean and analyze omics data. The pipeline leveraged supervised AI methods to extract features and identify biomarkers predictive of clinical outcomes. Implemented front-end (Streamlit and Dash), database (MongoDB and PostgreSQL), API (FastAPI) and parallelization solutions to optimize the pipeline's performance. Led a team of 5 with agile methods (SCRUM). Secured 5 MNOK funding (2 MNOK from Innovation Norway).

Data Scientist and Backend Developer - Consultant Resonyx. Norway.

2022 2021

Analyzed terabytes of high-frequency audio data to detect anomalies and baseline variations. Developed and deployed ML/AI models to predict failures in heavy hydropower machinery. Maintained an AWS cloud infrastructure, including databases, long-term storage, roles and monitoring systems. Led a team of 7 with agile methods (SCRUM).

Researcher

Italian Institute of Technology. Italy

2021 2017

Studied the interaction between drugs and biomolecules with ML/AI and statistical inference models, in Python. Participated in 4 drug discovery campaigns and identified hit compounds for different forms of cancer and bacterial infections. Authored 9 peer-reviewed publications and supervised 2 master's students.

Education

Ph.D. Biocomputational Sciences (cum laude)

2021 Italian Institute of Technology. Italy.

2017 Thesis title: Multiscale Modeling of Metal Nanoparticles for Biotechnological Applications.

BSc. Physics (GPA 3.59)

2017 University of Los Andes. Colombia.

2012 Thesis title: Simulations of a Weakly Self-Interacting Fluid Using Lattice Boltzmann Methods (Graded 4.00/4.00).

BSc. Chemistry (GPA 3.57)

2016 University of Los Andes. Colombia.

Thesis title: Application of Molecular Mechanics for the Discovery of Novel Microbial IIA Topoisomerases Inhibitors (Graded 4.00/4.00).