

Sebastian Franco Ulloa, Ph.D.

Data Scientist

With over 7 years of programming experience and a Ph.D. in biocomputational sciences, Sebastian specializes in developing pipelines to streamline and analyze large biomedical data sets. He has worked as a data scientist, bioinformatician and backend developer, honing his skills in industrial software development and project/team management. He thrives in spaces where he can learn new technologies and spar ideas with his colleagues. Sebastian approaches challenges with an analytical and compassionate mindset, actively seeking diverse perspectives to make well-informed decisions. He describes himself as a self-aware and determined individual with a sense of humor, while his peers see him as disciplined, goal-oriented and caring.

Contact

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📍 Oslo, Norway

Skills

Bioinformatics

Machine learning

Statistical analysis

Drug discovery and development

Data visualization

Scientific communication

Teaching

</> Programming

Python

SQL

Typescript (React)

Docker

AWS

🗣 Languages

Spanish

English

Italian

Norwegian

📁 Work Experience

Senior Data Scientist - Consultant

Oslo University Hospital - CellFIT. Norway.

Now
2023

Designed and implemented a Python web application to clean and analyze proteomics data. The pipeline leverages supervised AI methods to extract features and identify biomarkers that are predictive of clinical outcomes. Implemented front-end (Streamlit, Dash and React), database (PostgreSQL and SQLite), API (FastAPI) and parallelization (thread and multiprocessing) solutions to optimize the pipeline's performance. Led a team of 5 with agile methods (SCRUM).

Biomedical Outreach Representative

Expert Analytics. Norway.

Now
2022

Represented Expert Analytics at Oslo Cancer Cluster and cultivated relationships with academic and industrial organizations in the biomedical sector. Secured 2 M NOK for the development of a proteomics data pipeline.

Senior Data Scientist and Backend Developer

Edge Audio Analytics. 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.*

2011 *Thesis title: Application of Molecular Mechanics for the Discovery of Novel Microbial IIA Topoisomerases Inhibitors (Graded 4.00/4.00).*