

Erika Chang de Azevedo, Ph.D. - Data Scientist | Data Analyst

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SUMMARY

Data Scientist with a PhD in Biomolecular Physics, combining research rigor, analytical depth, and business focus. I transform complex data into actionable insights, building machine learning and GenAI applications that create measurable value. Experienced across academia, education, and consulting — I bring both technical fluency and the ability to communicate data clearly to drive real-world decisions.

SKILLS

Python & ML: pandas, scikit-learn, TensorFlow/Keras, LangChain, HuggingFace

MLOps & Cloud: FastAPI, Docker, MLflow, CI/CD, Vertex AI, Cloud Run (GCP)

Data Engineering: SQL (PostgreSQL, SQLAlchemy), ETL pipelines, ChromaDB

Visualization & BI: Tableau, Streamlit, matplotlib, seaborn

Soft Skills: Data storytelling, stakeholder engagement, mentoring, adaptability

PROFESSIONAL EXPERIENCE

Tiprev

Online

Data Scientist

07/2023 - Present

- Designed **revenue forecasting models** and **fraud-risk analyses** that improved financial oversight across 40+ municipalities.
- Automated **ETL workflows in Python and SQL**, enhancing data transparency for national audits.
- Built **Tableau dashboards** used by municipal leaders to monitor pension health and compliance.

Le Wagon

Online

Data Science and AI Bootcamp

01/2025 - 03/2025

- Developed **Eyesense**, a deep learning app for eye disease prediction (TensorFlow/Keras, Streamlit, 92% accuracy).
- Applied **ML pipelines, reproducible workflows**, and **feature engineering** in predictive modeling tasks.
- Collaborated in Agile teams, presenting findings clearly to both peers and mentors.

University of São Paulo - São Carlos, São Paulo, Brazil

Senior Research Scientist

02/2015 - 05/2020

- Conducted predictive modeling and bioinformatics workflows on GPU clusters, scaling simulations 100x faster.
- Published 3 peer-reviewed papers and presented insights to interdisciplinary teams.
- Mentored junior researchers in analytics, data visualization, and reproducibility.

PROJECTS

SecureMed Chat | GenAI, FastAPI, Vertex AI, ChromaDB, GCP

Designed a **privacy-first medical intake assistant** using RAG and zero-persistence architecture; ensures GDPR compliance while deploying scalable LLM solutions.

Eyesense | TensorFlow/Keras, Streamlit, GCP

Built and deployed a **deep learning model for eye disease detection**, achieving 92% test accuracy.

ETL Pipeline | Python, SQLAlchemy, Docker, PostgreSQL

Created an **end-to-end data pipeline** transforming raw sales data into analytics-ready tables for BI dashboards.

EDUCATION

LeWagon - Data science & AI

University of São Paulo - Ph.D. in Biomolecular Physics

University of São Paulo - Master's degree in Biomolecular Physics

LANGUAGES

Portuguese - native

English - advanced

Dutch - intermediate (willing to improve)