

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

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SUMMARY

Data Scientist with a PhD in Biomolecular Physics who transforms complex data into practical, business-ready solutions. I build predictive models, automated data pipelines, and GenAI applications that make decisions faster and more reliable. Known for combining scientific rigor with clarity and storytelling—turning analytics into insights that teams and leaders can act on.

SKILLS

Programming & ML: Python (pandas, scikit-learn, TensorFlow, LangChain, Hugging Face) | SQL (PostgreSQL, SQLAlchemy)

Data Engineering & MLOps: ETL pipelines | Docker | FastAPI | MLflow | Vertex AI | CI/CD

Visualization & BI: Tableau | Streamlit | matplotlib | seaborn

Business & Soft Skills: Data storytelling | Stakeholder communication | Mentoring | Analytical thinking

PROFESSIONAL EXPERIENCE

Tiprev **Remote**

Data Scientist 07/2023 - Present

- Automated pension-data workflows in Python and SQL, reducing manual handling and ensuring consistency across multiple municipal datasets.
- Built ML models that detect anomalies and support early risk identification for municipal pension systems.
- Developed interactive Tableau dashboards enabling leaders to monitor pension health and guide strategic planning.
- Partnered with cross-functional teams to align data processes with audit and compliance requirements.

Le Wagon **Remote**

Data Science and AI Bootcamp 01/2025 - 03/2025

- Created **Eyesense**, a deep-learning application for early eye-disease detection using TensorFlow/Keras and Streamlit.
- Implemented predictive modeling and feature-engineering pipelines following reproducible and scalable ML practices.
- Collaborated in Agile teams, presenting technical results in accessible, business-oriented language.

University of São Paulo **São Carlos, São Paulo, Brazil**

Senior Research Scientist 02/2015 - 05/2020

- Designed predictive models and bioinformatics workflows on GPU clusters to accelerate molecular simulations.
- Published peer-reviewed research and translated complex computational findings into actionable insights for cross-disciplinary teams.
- Mentored junior researchers in analytics, visualization, and reproducible research methods.

PROJECTS

SecureMed Chat | *GenAI, FastAPI, Vertex AI, ChromaDB (GCP)*

Developed a privacy-first RAG chatbot for medical intake using zero-persistence architecture to ensure GDPR compliance and scalable deployment.

Eyesense | *TensorFlow/Keras, Streamlit, GCP*

Built and deployed a deep-learning model for eye-disease prediction with a focus on explainability and healthcare applicability.

ETL Pipeline | *Python, SQLAlchemy, Docker, PostgreSQL*

Created an end-to-end data pipeline transforming raw pension and financial data into analytics-ready tables for dashboards and reporting.

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 – fluent | Dutch – intermediate (willing to improve) | Spanish – basic