

EUGENIO CRUZ

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Summary

Mathematical and Computational Engineer specialized in Data Science and optimization. I thrive in collaborative environments with a proactive and positive attitude. Graduated as top Mathematical and Computational Engineering student of my class. Strong background in machine learning, statistical modeling, and optimization algorithms. Outside of work, I'm an avid sports enthusiast, enjoying water skiing, snow skiing, and rock climbing.

Education

EPFL 2026 (Upcoming)

Visiting Student - Master Program

• Research Visit under the supervision of Prof. Andrés Cristi. Focus: Pricing mechanisms.

PUC CHILE 2025

M.Sc. in Engineering Sciences

• Industrial and Systems Engineering.
• Under the supervision of Victor Verdugo: Computational Mathematics applied to Pricing.

PUC CHILE 2024 - 2025

Mathematical and Computational Engineer

• Graduated First in Class. Award: "Mejor Estudiante del Instituto de Ingeniería Matemática y Computacional".
• Summa Cum Laude.

PUC CHILE 2020 - 2024

Licentiate in Engineering Sciences

• Mathematical Engineering.
• Major: Engineering Mathematics (Data Science Track).
• Minor: Theory of Computing.

Tech

Python • R • C++ • SQL • Git • Docker • GCP • PostgreSQL • pandas/numpy/scipy • scikit-learn • XGBoost • PyTorch • TensorFlow • LangChain • MLflow • Gurobi

Undergraduate Research

◦ **Advanced Algorithms for Collective Decision Making (2024)**

Elections, allocation of goods, assignment in matching platforms.

◦ **Calculation of Eigenfunctions of Classical Fluid Energy Operators Using Spectral Methods (2022)**

Global stability study of laminar flow.

Experience

Co-Founder & Lead Data Scientist - Teapot 2024 - Present

• Co-founded a startup developing personalized study guides using statistical models and AI.
• Led the development of optimization algorithms for educational content delivery.

Capstone II Project - Data Science - Ainwater 2025

• Developed AI models to identify critical zones for water access in Chile using geographical and social data.

Front Office Trading Consultant Intern - Murex 2025

• Designed solutions for trading users and optimized Front Office processes in Murex MX.3.
• Customized views and workflows to enhance trading desk efficiency.

AI Code Specialist (Freelance) - Pareto AI 2024 - 2025

• Generated and validated complex code datasets for training Large Language Models (LLMs).
• Ensured high-quality data standards for next-generation AI coding assistants.

Academic Teaching Experience - PUC CHILE 2022 - 2024

• Coordinator TA: Probability & Algorithms (2024).
• TA: Intro to Differential Privacy (M.Sc., 2024).
• TA: Calculus III (2022). Conducted lectures, created study materials, and graded assessments.

Capstone I Project - Model Audit - Banco Itaú 2023

• Audited Machine Learning models and defined guidelines for their maintenance.
• Executed model validation tests and established governance protocols.

Extracurricular Activities

- **2025 - Present:** IT Coordinator, Pontem Consulting Group
- **2025:** Participant, Summer School of Discrete Mathematics (CMM, IMC, UC, UChile)
- **2024:** Founder & Professor, Programming and Algorithms Course (Colegio San José de Chicureo)
- **2021 - 2023:** Co-Founder, Open Source UC

Languages

Spanish (Native) • English (C1) • French (A1-A2)

Publications

2025 (Upcoming): The Competition Complexity of Static Pricing for Multi-item Prophet Inequalities. *Operational Research Journal (OR)*. Authors: Eugenio Cruz-Ossa, Sebastian Perez-Salazar, Victor Verdugo.