

LUCAS MALACRIDA DIAS

Aspiring Quant | Physics Graduate | Software Engineer

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Objective

Seeking a Quantitative Analyst role where I can leverage my background in physics, strong analytical skills, and software engineering experience to develop and optimize data-driven financial strategies.

Work Experience

2024 - present

EXTERNAL SECRETS INC

San Francisco, USA (Remote)

Software Engineer

- Developed secure and robust web applications for Kubernetes secrets management, ensuring high reliability in a security-critical environment by following best practices in security, testing, and maintainability.
- Built and maintained frontend applications using React, TypeScript, Tailwind, shadcn, and React Query, focusing on usability and performance.
- Contributed to backend services using FastAPI, pytest, and MongoDB, enhancing system scalability.

2024

BTG PACTUAL

São Paulo, Brazil (Remote)

Intern, Automation Developer

- Developed automated systems for Repo and Trade management, reducing manual risk exposure and enhancing control of large cash operations (billions of dollars).
- Designed scalable web applications using Python, FastAPI and PostgreSQL, supporting global operations (LATAM and Cayman branches).
- Improved operational efficiency and data reliability in Back and Middle Office processes via automation tools.

2023

DRIVEN PROJECTS

São Paulo, Brazil (Remote)

Full Stack Developer

- Completed over 20 practical projects (systems and apps), replicating the pace and demands of IT teams, using all the web development technologies listed in "Skills".
- Implemented best practices in software engineering, such as architecture, optimization and clean code.

2018 – 2024

UNIVERSIDADE DE SÃO PAULO (USP)

São Carlos, Brazil

Math and Physics University Teaching Assistant

- Assistance in courses "Calculus II", "Calculus III", "Classical Mechanics", "Physics II" and "Physics Lab I";
- Developed exercise lists and reinforcement classes, significantly complementing the undergrads' learning.

Education

UNIVERSIDADE DE SÃO PAULO (USP)

São Carlos, Brazil

2019-2024

- Bachelor in Physics – Grade Average 8,4/10 = GPA 3.36

2017-2019

- Bachelor in Aeronautical Engineering (Unfinished – 40%)

2015-2016

ELITE (2015) & POLIEDRO (2016) - Pre-University Courses (focus on ITA)

São Paulo, Brazil

Awards

- Silver medal at the "4th Competição Elon Lages Lima" (2023) - University Math Olympiad.
- Honorable mention at the "45th Olimpíada Brasileira de Matemática" (2023) - University Math Olympiad.
- Top 6 best scores of the "Exame Unificado de Física" (2023.2) - Graduate Physics Exam.
- Silver medal at the "2da Olimpiada Latinoamericana y del Caribe de Física Universitaria" (2018) - University Physics Olympiad.
- Admitted for a double degree at the "École Centrale de Marseille" (2018) - French College Admission.

Skills

- **Financial Math:** Statistics, Calculus, L. Algebra, Tensors, Stochastic Processes, Black-Scholes, Option Pricing
- **Programming & Quant Libs:** Python / SQL / Bash / MT5 / Pandas / NumPy / SciPy / Matplotlib / torch / qfin
- **Web Dev:** HTML / CSS / Javascript / Typescript / React / styled-components / MUI / Tailwind / Node / Prisma / FastAPI / PostgreSQL / MongoDB / Websockets / Redis / Jest / Docker / Kubernetes / AWS / Azure

Complementary

- **Quant Projects:** github.com/lucasmalacrida/quant-projects
- Half a year of futures day-trading experience, with some experience in options trading.
- **Undergraduate Thesis:** Introduction to Black Hole Thermodynamics
- Native Portuguese and Fluent English;
- Gym, competitive eating and guitar.