# MARINA OLIVEIRA LEVAY REIS

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#### **EDUCATION**

Minerva University San Francisco, CA

Bachelor's, Computer Science and Mathematics / GPA: 3.7

September 2023 - May 2027

Coursework: Complex Systems Modeling, Optimization Methods, Prediction and Causal Inference, Real Analysis,
 Physics I and II, Algorithms and Data Structures, Single and Multivariable Calculus, Linear Algebra.

#### **PROJECTS**

## ForumTex - Chrome Extension for LaTeX/Math in Minerva University's text editors

- Developed a Chrome extension using JavaScript, HTML and CSS to render LaTeX in Minerva University's classroom
  platform, solving a long-standing gap unaddressed by the engineering team.
- Engineered a modular Quill editor override with manifest-based injection, balancing security and performance.
- Achieved 160+ views and 30+ GitHub clones, improving the mathematical writing experience of students and faculty.

### EXPERIENCE

Teachy San Francisco, CA

Machine Learning Engineering Intern

May 2024 - September 2024

- Award-winning EdTech startup developing LLM tools for over 3 million teachers.
- Worked as the Owner of Material Importing, focusing on data mining, Optical Character Recognition (OCR).
- Developed an agentic exam solver for high PDF volumes using LangChain Agents and the OpenAI API.
- Imported 8,000+ processed materials to the production database per week.

## **Summer Geometry Initiative, MIT**

San Francisco, CA

Research Fellow

April 2025 - August 2025

- Selected as the first student from my university to pursue team research projects in geometry processing.
- Developed a CUDA-accelerated Python pipeline to train Deep Learning models for interpolating between 3D shapes.
- Created PyTorch models for optimal transport (OT) of light rays for reconstructing a 3D reflector surface.

## **Mathematical Modeling Lab, Minerva University**

San Francisco, CA

Research Assistant

January 2025 - Present

- Developing physics-based simulations on impact mechanics for solids and fluids.
- Using numerical methods (e.g. Finite Element Analysis) and geometry processing techniques (e.g. Discrete Mesh representations) to develop <u>high-fidelity 3D simulation models</u> in Julia and Python.

## Al Sustainability Lab, Minerva University

Taipei, Taiwan / Seoul, South Korea

Research Assistant

September 2024 - April 2025

- One of two sophomore-year teams selected among 100+ applications.
- Trained a ConvLSTM model on NASA imagery, weather, and terrain data to generate wildfire spread probability maps.
- Engineered a <u>data analysis pipeline</u> merging NASA FIRMS, Socrata, and Meteomatics APIs into a fire-risk scoring model mapped to San Francisco streetlights.

<u>Fundação Estudar</u>

Brasilia, Brazil

Data Science Intern

March 2023 - August 2023

- Developed exploratory data analyses (EDAs) and user segmentations with Google BigQuery for large datasets 800,000+ users or educational courses.
- Performed A/B testing and created new ETL jobs on dbt for a Metabase dashboard that integrated product and business data. Provided insights into a long-standing problem in the strategy for matchmaking events.

# Awards

- First Place: NASA Space Apps Challenge; selected among 100+ projects Mountain View, CA (2023). Blog Post
- Scholar in Brazil's most selective technology fellowship (Acceptance rate: 0.5%) (2022).

#### SKILLS

- Software: HTML · CSS · JavaScript · React · XCode · Android Studio · Figma (UI/UX)
- ML/AI: Python · C++ · CUDA · PyTorch · TensorFlow · pandas · matplotlib · seaborn · scikit-learn · REST APIs for LLMs
- Data & Infrastructure: SQL (Postgres/MySQL) · BigQuery · dbt · Docker · Git