## Mateo Echeverry Hoyos

Github LinkedIn

Personal website mateo.echeverryhoyos@gmail.com

#### Education

### École Polytechnique Fédérale de Lausanne

Exchange student, Master's in Data Science

Universidad Politécnica de Madrid

Bachelor's in Computer Engineering

September 2022 – Present Lausanne, Switzerland September 2019 – July 2023 Madrid, Spain

### Work Experience

### **Software Engineer Intern**

June 2022 – September 2022

YIO Technologies

Madrid, Spain

- Worked on the implementation and optimization of Deep learning models to build a trading bot
- Extracted and structured data recollected through the Binance API with Python
- Achieved an accuracy of 82% through the use of recurrent neural networks, achieving an average of 4% profit over the course of a month.

#### Software Engineer Intern

June 2021 – September 2021

Globalzepp Madrid, Spain

- Worked on a recommendation engine for the CNET website using Java and Neo4j
- Converted the recommendation engine from Ant to Maven
- Participated in the process of redesigning in the underline graph schema for the recommendation engine

#### **Projects**

#### U-Net Model to Detect Roads in Satellite Aerial Imagery

December 2022

EPFL, Machine Learning

Implemented a convolutional neural network model to detect roads. The model was optimized through the modifications of layers, filters, and dropout. Data augmentation was performed in order to increase the number of labeled data available. Ranked 1st out of more than 100 teams.

# Behind the Silver Screen: Examining Gender Inequality in the Film Industry EPFL, Applied Data Analysis

December 2022

This data story looks at gende

This data story looks at gender inequality in the film industry, specifically the representation of female characters in popular films. The study uses data on film and cast as well as film summaries to understand the depiction of female characters. The results highlight the persistent gender inequality in the film industry

# A New Regularized Logistic Regression Method to detect Higgs Boson production *EPFL*, *Machine Learning*

October 2022

A logistic regression is implemented to predict if a decay signature is a Higgs Boson or some other particle. The model is based on a vector of features of a collision event between two high-speed protons. It was trained on 8 sub-sets of the full dataset giving an F1-score of 0.790.

#### Specialized Skills

Programming Languages: Python, Java, C++, Javascript, R

**Data Visualization:** D3.js, Power BI, Plotly **Machine Learning:** Tensorflow, PyTorch

Languages: Native Spanish and French speaker; C1 Advanced English