

# Mathias Ruoss

Quant, Data Scientist

Data Scientist with a Master in Quantitative Finance from ETH Zurich. 5+ years of experience in Python. Strong analytical, statistical, programming and collaboration skills.



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## WORK EXPERIENCE

### Data Science Intern Swiss National Bank (SNB)

09/2023 - Present

Zurich, Switzerland

*Achievements/Tasks*

- Constructing end-to-end ML pipelines using Python
- Optimizing models to enhance forecast accuracy using mlflow
- Implementing CI/CD pipelines in gitlab
- Reviewing and debugging of team members code
- Testing using pytest

### Equity Derivatives Sales Intern UBS AG

03/2019 - 08/2019

Opfikon, Zurich, Switzerland

*Achievements/Tasks*

- Engineered and priced structured products
- Streamlined operations through automation using Microsoft VBA
- Enhanced trading support by vigilantly monitoring market making quotes
- Conducted competitor analysis and executed innovative strategies

### Reporting Specialist UBS AG

12/2013 - 07/2015

Zurich, Switzerland

*Achievements/Tasks*

- Gap year for personal growth and exploration before university studies
- Served as Deputy Product Specialist for the Spanish tax report
- Developed automated tax reports for international clients

## EDUCATION

### Master of Science, Quantitative Finance ETH Zurich

09/2019 - 02/2023

Zurich, Switzerland

*Courses / Thesis*

- Introduction to ML, Advanced ML, Probabilistic AI, Deep Learning, Finance and ML
- Master Thesis: Option Return Classification with Machine Learning

### Bachelor of Arts, Banking and Finance University of Zurich

09/2015 - 12/2018

Zurich, Switzerland

*Thesis*

- Bachelor Thesis: Betting against Beta - Evidence from the Swiss Stock and Bond Market

## SKILLS

Programming: Python (5+ y), C++ (1+ y)



ML toolkit: numpy, pandas, scikit-learn, matplotlib, seaborn, xgboost, pytorch, mlflow



SW development in Python: IDE (VS Code), debugging, testing/linting/type checks



Statistics and math



Project management



## ML PROJECTS

Option Return Classification with Machine Learning (06/2022 - 12/2022)

Polynomial Feature Learning (11/2021 - 01/2022)

Deep Reinforcement Learning applied to Stock Trading (09/2021 - 12/2021)

Road Segmentation with Convolutional Neural Networks (04/2021 - 07/2021)

## ACHIEVEMENTS

Semester Award Fall 2018, University of Zurich (10/2019)

## LANGUAGES

English (fluent)



German (native)



French

