Mathias Ruoss

Quant, Data Scientist

Data Scientist with a Master in Quantitative Finance from ETH Zurich. 4+ 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 (4+ y), SQL (2+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