Arianit Sylafeta

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SUMMARY

Quantitative Finance Master's student with a deep-seated passion for data science and financial markets. Armed with a solid foundation in mathematical modeling, statistical analysis, and programming, I am eager to contribute to the world of finance. Seeking an internship opportunity on the buy-side doing model development and research.

EDUCATION

Quantitative Finance with Data Science — **London, UK**

MSc from Birkbeck, University of London — July 2024

Relevant Courses: Stochastic Calculus, Econometrics, Statistical Analysis, Quantitative Methods, Credit Risk Management, Market Risk Management, Financial Modelling with Data Science

Web and Mobile Computing in Information Technology — **New York, USA**

BAASc *from Rochester Institute of Technology* — May 2022

Relevant Courses: Algorithms, Principles of Computing, Database Modelling, Task Automation, Accounting, Game Theory

Extracurriculars: Financial Management Club Member | Startup Bootcamp Member | Vice-President Candidate

WORK EXPERIENCE & PROJECTS

Spread Option Pricing - Project (Python) — **Oct 2023**

- Developed a model for pricing spread option calls between indices via Monte Carlo simulations.
- Backtested model accuracy by implementing two closed-form solutions from seminal papers, namely, Bjerksund and Stensland's Formula and Kirk's Approximation.
- Optimized model by vectorizing calculations, achieving a 97% boost in processing time.
- Model prediction was within 1 standard deviation of closed-form solutions, proving successful implementation.
- Future improvements might include integration of stochastic volatility and dividend payments.

Algorithmic Trading Developer — **Oct 2022 - Sep 2023**

Freelance, Remote

- Managed a small quantitative fund, developing cointegration-based pairs trading strategies and returning 4% in Q4 2022.
- Researched and backtested novel approaches to pairs trading including Distance, Copula, PCA, and Machine Learning strategies.
- Developed +10 trading algorithms for remote clients, based on client preferences, including Bollinger Band, Andrew's Pitchfork, Volume, and Momentum strategies.
- Coded +15 custom technical indicators for popular trading platforms like Ctrader or Metatrader, either from scratch or translating them from Pinescript.

CERTIFICATIONS

Reinforcement Learning in Finance

Course | New York University, Online | 2023

Relevant Topics: Markov Decision Processes, Discrete-Time Black Scholes, Q-Learning

Machine Learning

Specialization | Stanford, Online | 2022

Relevant Topics: Linear Regression, ANNs, Tree Ensembles, Recommender Systems, K-Means, LSTMs

SKILLS

- **Data Analysis**
- **Machine Learning**
- **Statistical Modelling**
- **Risk Management**
- **Porfolio Optimizing**
- **Options Pricing**
- **Programming (R, Python)**
- **Communication Skills**