

ARJUN KALSI

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EDUCATION

NEW YORK UNIVERSITY

New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics in Finance (expected-Dec 2022)

- **Coursework:** Monte Carlo methods, Brownian motion, supervised/unsupervised learning, feature map regression, cross-validation, neural networks, data cleaning and web-scraping

UNIVERSITY OF WARWICK

Coventry, UK

BS Mathematics, Operational Research, Statistics, Economics (Sep 2018-Jun 2021)

- **Coursework:** mathematical analysis, linear algebra, probability, Bayesian statistics and decision theory, MLE, options pricing, linear statistical modeling, stochastic processes

EXPERIENCE

SOFR ACADEMY - *Quantitative Analyst Intern* (Dec 2021-June 2022)

New York, NY

- Constructed a publication handbook for the firm's new Across-the-Curve Credit Spread Index (AXI) tool, explaining all automated code related to the data retrieval process via AWS, and presented this to prospective clients
- Applied AXI values to 1 year of historical JPY data using Python for an ongoing non-USD AXI feasibility study aimed at increasing the versatility of the index
- Collaborated with Japanese colleagues to research JPY transaction data sources for short-term money market instruments data, as well as long-term bond transactions data

H2 VENTURES - *Venture Capital Intern* (Jul 2020-Aug 2020)

London, UK

- Identified 10 promising start-ups in the healthtech industry and built a grading scale function using Python in order to rank them, allocating points based on risk, management, business strategy, and exit opportunities
- Evaluated 4 start-ups in the firm's portfolio using the venture capital method as well as DCF analysis, and pitched investment strategies to peers based on these results

PROJECTS

NEW YORK UNIVERSITY - *Trading Energy Derivatives Project (Python)*

- Used a rolling regression model on USD rates, inflation rates, and storage in order to develop a carry-based strategy for WTI futures
- Leveraged Python modules such as SciPy, NumPy, and Pandas to interpolate storage data, as well as optimize the rolling regression window over the last 10 years of data
- Utilized a Middle Eastern war sentiment index to implement a threshold signal to halt trading which increased the annualized Sharpe Ratio from 0.42 to 0.61

UNIVERSITY OF WARWICK - *Airlines Trading Study with NLP (Python)*

- Cleaned and analyzed 3 months of historical time-series data to backtest a pairs algorithm on a model portfolio focussed on American Airlines and United Airlines
- Used NLP techniques on a US Airline Sentiment Tweets dataset to expand and contract trade volume
- Generated returns of 13% and visualized a distinct relationship in stock performance between two firms in the same industry

COMPUTER SKILLS/OTHER

Programming Languages: Python, SQL, Java, R, MATLAB

Languages: English (native), French (basic)

Interests: Music Producer on Spotify and Apple Music with over 20,000 monthly listeners