AURENCE JIN

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EDUCATION

CARNEGIE MELLON UNIVERSITY, TEPPER SCHOOL OF BUSINESS

New York, NY

Master of Science in Computational Finance - MSCF

GRE Quant: 170 / 170

12/25

• Upcoming Coursework: Stochastic Calculus, Machine Learning, Financial Computing (Python, C++) & Optimization, Simulation Methods for Option Pricing

THE CHINESE UNIVERSITY OF HONG KONG

Shatin, Hong Kong

B.Sc. in Quantitative Finance and Risk Management Science

First Class Honors

07/24

- Cumulative GPA: 3.66 / 4.00; Major GPA: 3.73 / 4.00 (Minor in Statistics)
- Relevant Coursework: Stochastic Modelling & Simulations, Stochastic Processes, Statistical Computing & Inference, Time Series, Advanced Derivatives, Data Structures & Algorithms, Database Systems
- Honors and Awards: Department of Statistics Scholarships (top 2 in RMSC major), Dean's List, Master's List

MCGILL UNIVERSITY Montreal, Quebec

Semester Exchange Student, Faculty of Science

Term GPA: 4.00 / 4.00

05/23

Relevant Coursework: Matrix Numerical Analysis, Statistical Learning, Ordinary Differential Equations

PROJECTS

QUANTITATIVE PORTFOLIO CONSTRUCTION STRATEGY (*)

01/24 - 04/24

- Integrated Bayesian shrinkage, Black-Litterman model and multi-factor models in re-evaluating posterior predictive moments of stock returns, reduced estimation errors by optimizing balance between bias and variance
- Backtested portfolio performance via Backtrader and QuantStats (Python packages), achieved a Sortino ratio of 1.1 and a CAGR of 15.89% over a four-year period

STRUCTURED PRODUCTS PRICING (Equity-Linked Note)

09/23 - 12/23

- Derived and interpolated the Black-Scholes implied volatility surfaces with real option quotes from Bloomberg, implemented Dupire's equation and Gatheral's method to calibrate local volatility surfaces for simulation purposes
- Developed, restructured and optimized Python algorithms for numerical methods in matrix computations and differentiation, decreased program's calculation time by at least 50%

CUSELL (Online second-hand trading platform for CUHK students)

01/22 - 04/22

- Scripted in HTML / CSS / JavaScript; designed and developed ornamented, user-friendly UI & web pages
- Built connection and integrated front-end user-facing interfaces with back-end web server framework (Python Django)

EXPERIENCE

DYMON ASIA CAPITAL (HK) LTD. (Leading hedge fund in Asia with US\$5.7 billion AUM) Quantitative Research Intern, MSIF-Portfolio Management Department

Central, Hong Kong 08/23 - 12/23

- Designed efficient SQL database schemas and optimized guery performance to ensure seamless data retrieval
- Developed web scraping tools (Selenium) to automate data extraction; facilitated data accuracy and consistency
- Expedited data acquisition and validation processes about index rebalancing from Bloomberg, MSCI, and FactSet

PRUDENTIAL HOLDINGS LTD. (Global leading insurance and asset management company) Actuarial Intern, Asset / Liability Management (Group Investment)

Central, Hong Kong 05/23 - 08/23

- Generated stochastic simulation sets under risk-neutral scenarios; deeply involved in data collection, parameters refinement and testing to meet calibration targets
- Assisted in research and further development of modelling process, enhanced daily workflow with Python automation
- Performed market-consistent valuations for multiple countries and real-world projections based on simulation sets

CHINA GALAXY SECURITIES CO., LTD. (Top-tier investment bank in China)

Beijing, China

Data Analyst Intern, Securities Finance Department

06/22 - 08/22

- Exploited pricing discrepancies between spot and futures markets for China Stock Indices, analyzed the distribution of lending interest rate, and generated trading signals to identify cash-and-carry arbitrage opportunities
- Tracked domestic financial market movements and regulatory environment, analyzed credit market data using Python

MINSHENG EQUITY INVESTMENT FUND MANAGEMENT CO., LTD.

Beijing, China

Industry Research Intern, Investment Management Department

05/21 - 08/21

- Conducted research and analysis on target client profiles and relevant industry (photovoltaic, autonomous vehicle)
- Appraised comparable listed companies valuation (EV/EBITDA, P/E, DCF) and comparable transactions valuation

ADDITIONAL INFORMATION

- Software: Experienced with Visual Studio Code, GitHub, Bloomberg, Wind, Microsoft Azure, SSMS
- Programming: Python (OOP, data analysis & visualization), R, MATLAB, Excel VBA, Java, C, C++, Linux Command
- Database Management: Knowledgeable in DBMS (SQL Server, MySQL, Microsoft Access, etc.)