Xin Cheng

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EDUCATION

The University of Chicago (GPA: 3.98/4.0) **Chicago, IL**
Master of Science in Financial Mathematics **Expected December 2024**

- Courses: Portfolio and Risk Management, Programming for Finance in C++, Advanced Computing for Finance, High-Performance Computing, Option Pricing, Probability and Stochastic Processes, Fixed Income Derivatives, Big Data, Numerical Methods, Optimization Methods

Nanyang Business School, Nanyang Technological University (GPA: 4.7/5.0) **Singapore**
Master of Science in Business Analytics **September 2022**

- Courses: AI with Advanced Predictive Techniques, Data Structure and Algorithms, Advanced Data Management

Harbin Institute of Technology (GPA: 89/100, Top 5%) **China**
Bachelor of Engineering in Automation **July 2020**

- Courses: Statistis and Probability, Linear Algebra, Calculus, Discrete Mathematics, Computerized Control

SKILLS

Computing: C++, Python, R, SQL, MongoDB, Git Bash, Linux, Excel VBA, MS Office, MATLAB
Knowledge: Object-Oriented Programming, Time Series Modeling, Option Pricing, Machine Learning models, Numerical Methods, Stochastic Process, Statistical Inference, Data Stuctures and Algorithms
Certificate: TOEFL 117, GRE 329 (V159, Q170), CFA Level 1

EXPERIENCE

JPMorgan Chase & Co **New York, NY**
Quantitative Analytics Summer Associate **June 2024 - Present**

- Apply log-linear regression model and time-series ARIMA modelling to predict future 9 quarter macroeconomic Variables (MEVs) and business control variables, identify proper scaler for each LOB, apply variable selection techniques, hard rejection criteria, and performance metric ranking to select top model.
- Build a benchmark alternative by fitting Poisson regression to event count and fitting Gamma distribution to event severity using MEVs and business variables, generate distribution and conduct statistical testing.
- Lead the automation of OPM (Ongoing Performance Monitoring) using Python API and SQL, automate manual entry steps for developers to save time and reduce risk of manual error.

DV Trading **Chicago, IL**
Quantitative Researcher – Project Lab, University of Chicago **January 2024 – May 2024**

- Leverage C++ to develop and implement performance-enhancing techniques for MBO (*Market by Order*) feed processing, evaluating time efficiency by Timestamp Counter (*RDTSC*).
- Develop order book storage system using data structures such as linked lists and hash maps, research about data structure parameters, such as initial reserved buckets in hash maps to minimize rehashing.
- Build backtester in python and develop a trading strategy performance dashboard with streamlit, show cumulative PnL plots, risk metrics, and hypothesis testing results.

Malayan Banking Berhad (Maybank) **Singapore**
Full-Time Quantitative Analyst, Global Markets **September 2022 – August 2023**

- Enhance in-house C++ pricing models for *FX* options, non-deliverable and mark-to-market swaps, and barrier options, and improve greeks calculation speed by merging Delta and Gamma calculation together.
- Auto-generated daily scheduled tasks to snap trades and market data from API and process them into MongoDB.
- Conducted scenario runs and sent out daily market risk report to traders.

EXTRACURRICULAR

International Association of Quantitative Finance (IAQF) Annual Competition - 2024 **Chicago, IL**
Team Member **January 18th, 2024 – February 28th, 2024**

- Proposes the utilization of Market-Implied Probability Distribution values, as reported by the Minneapolis Federal Reserve, within a trading strategy framework.