ZIAN (KATHLEEN) ZHANG

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EDUCATION

NEW YORK UNIVERSITY, TANDON SCHOOL OF ENGINEERING Brooklyn, NY
Master of Science in **Financial Engineering**, *GPA: 3.8/4.0* Expected 05/20

BARUCH COLLEGE, CITY UNIVERSITY OF NEW YORK New York, NY
Bachelor of Business Administration in **Accountancy**, Minor in **Mathematics**, *GPA: 3.9/4.0* 05/17

TECHNICAL SKILLS / CERTIFICATIONS

- Skills: Python, C/C++, Java, MATLAB, R, SQL, Excel VBA, LaTeX
- Certifications: FRM Part I Passed, Bloomberg Certified

COURSEWORK HIGHLIGHTS

- **Mathematics & Statistics:** Options Pricing & Stochastic Calculus, Quantitative Methods in Finance, Principle of Statistics
- **Programming:** Financial Computing (C++), Machine Learning, Algorithmic Trading & High-Frequency Finance, Database
- **Risk Management:** Finance Risk Management & Asset Pricing, Fixed Income Quantitative Trading

QUANTITATIVE FINANCE AND RELATED EXPERIENCE

ALPHACREST CAPITAL MANAGEMENT, New York, NY 05/19-12/19
Intern, Quantitative Research
- Conducted in-depth research on long-short equity trading strategies and presented results to principals.
- Built trading strategies of price movement on earning announcement day and cash-based profit with IR 1.37 out of sample data.

HUATAI SECURITIES (SSE: 601688), Beijing, China 06/17-07/18
Analyst, Quantitative Research
- Improved DuPont Analysis by calculating and back-testing 8 financial ratios of 28 primary industries from financial data of 3,352 companies. Achieved annualized return of 13.73%, using strategy based on Operating Difference Margin ratio.
- Performed sector rotation research, applying Fourier Transforms & Gauss Filter, built trading strategy based on research, back-tested it with historical data of past 50 months, achieved annualized return rate of 20.98% and Sharpe ratio of 1.46.

ARENSON, New York, NY 05/16-08/16
Accounting Assistant, Finance Department
- Posted weekly payable expenses to the subsidiary ledger, and helped prepare financial statements under GAAP.

ACADEMIC PROJECTS / FINANCIAL MODELLING

NEW YORK UNIVERSITY, Department of Financial Engineering, Brooklyn, NY
Forecasting the term structure of government bond yields 02/19-03/19
- Priced government bonds by discounting each cash payment with the corresponding yield derived from Nelson-Siegel model.
- Applied optimization algorithm to minimize squared difference between the estimated price and the actual price for all bonds each day, determining the best estimate parameters daily to forecast parameters and government bond yields, using Python.

Impact of Earning Surprise on Russell 1000 Stock Price 11/18-12/18
- Retrieved large-scale financial data from Yahoo Finance using external library (LibCurl) and stored in STL containers including map, vector and matrix.
- Partitioned Russell 1000 stocks intro 3 groups based on the difference between Bloomberg EPS estimate and real performance, tracked average daily abnormal returns of 120 days around EPS release date for each group using Bootstrap algorithm.

Object-Oriented Design for Option Pricing 08/18-11/18
- Built classes of Binomial Model and different types of options in a well-organized inheritance hierarchy to price options using polymorphism, Monte Carlo Method and Black-Scholes Model.

BARUCH COLLEGE, Department of Mathematics, New York, NY 01/17-04/17
Numerical Linear Algebra for Financial Engineering
- Used R to write code to generate discount factors of several temporal points, and used efficient cubic spline interpolation to achieve the zero rate curve.
- Computed proportion of different asset categories to achieve efficient portfolio, its return and risk using Markowitz Mean-Variance Portfolio Theory, with expected values, standard deviations, and correlations of assets given.

HONORS / AWARDS

- **NYU Scholarship**, $7,000 per year for outstanding applicant, 2018
- **Summa Cum Laude**, **Dean’s List**, Baruch College, 2015-2017

EXTRACURRICULAR ACTIVITIES

- **Treasurer**, Finance Committee, Baruch College Transfer Students Organization
- **Sigma Alpha Delta Honor Society**, Official Member, Baruch College