PENGCHENG ZHOU

(201) 551-9603 // pengcheng.zhou@nyu.edu // linkedin.com/in/pengcheng-zhou525

EDUCATION

Expected 12/24	**NEW YORK UNIVERSITY** **The Courant Institute of Mathematical Sciences** **M.S. in Mathematics in Finance**	New York, NY

- *Coursework:* object-oriented programming, data structures and algorithms, Black-Scholes, machine learning, data science, stochastic calculus

09/19 - 06/23	**ZHEJIANG UNIVERSITY** **B.Econ., Concentration in Finance**	Hangzhou, China

- *Coursework:* calculus, linear algebra, probability & statistics, ODE and PDE, stochastic process, real analysis, computational methods, linear regression, time series models, data analysis (Python), corporate finance, asset pricing
- *Honors/Awards:* Outstanding Graduate of Zhejiang University

EXPERIENCE

09/21 - 10/21	**ZHEJIANG ZHEQI INDUSTRIAL CO.** (A leading Chinese market maker) **Financial Engineer Intern (Python, MySQL)**	Hangzhou, China

- Read and summarized industry articles and reports about quantitative finance
- Collected options transaction data and used cubic spline interpolation to fit options prices
- Estimated implied volatility through Newton-Raphson and bisection methods using GitHub to support team projects

PROJECTS

11/21 - 06/23	**ZHEJIANG UNIVERSITY** **In Search of Latent Factors in Commodity Markets (Python, MATLAB)**	Hangzhou, China

- Conducted main empirical research as co-author of paper; presented it at 2 international academic conferences
- Cleaned data of 32 US commodities, constructed continuous price series, returns, and characteristics, and applied risk-premium PCA (RP-PCA) as primary method
- Evaluated 4 models' in- and out-of-sample performance, and conducted statistical tests to compare models' performance
- Used factor selection procedure proposed by Harvey and Liu (2021), factor spanning tests, and Fama-MacBeth regressions to confirm new factors' pricing power
- Improved static strategy by combining RP-PCA with factor timing strategies; result: reached SR of 0.62, information ratio of 0.74, and expected utility of 0.41 in out-of-sample case

12/20 - 01/21	**ZHEJIANG UNIVERSITY** **Sentiment Analysis of Twitter Text (Python)**	Hangzhou, China

- Applied Naive Bayes Classifier to analyze probability of positive emotions in Twitter text
- Visualized sentiment analysis results in geographic heat maps with Tableau

05/20 - 06/20	**ZHEJIANG UNIVERSITY** **Visualization of COVID-19 Situation (Python)**	Hangzhou, China

- Acquired and cleaned pandemic data of 100+ countries, with pandas
- Visualized each country's cumulative cases and deaths in dynamic scatterplot with Plotly; shared project on cloud (PythonAnywhere)

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (NumPy, pandas), MATLAB, SQL
Languages: English (fluent), Mandarin (native)
Affiliations/Certifications: Passed Financial Risk Manager Exam, Part I (July 2021)