

TIANZI ZHENG

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EDUCATION

Washington University in St. Louis, Olin Business School | St. Louis, MO, USA

08/2021 – 12/2022

Master of Science in Finance – Wealth and Asset Management

- GPA: 3.89/4.0, Charles F. Knight Scholar (Top 3%)
- Relevant Courses: Database Design and SQL, Machine Learning, Big Data, Data Analysis, Forecasting & Risk Analysis, Quantitative Risk Management

Purdue University, College of Engineering and Science | Hammond, IN, USA

08/2019 – 05/2020

Certificate of Science in Electrical and Computer Engineering, Exchange Year

- GPA: 4.0/4.0
- Relevant Courses: Programming for Engineers, Object-Oriented Programming, Linear Circuit Analysis

North China Electric Power University | Beijing, China

09/2016 – 06/2019

Bachelor of Science in Applied Physics & Bachelor of Economics in Finance (Dual Degree)

- GPA: 3.06/4.0, Top 20%
- Relevant Courses: Mathematical Analysis, Probability and Mathematical Statistics, Methods of Mathematical Physics, Statistics, Data Processing, Computational Physics, Microeconomics

RESEARCH EXPERIENCE

Columbia University | New York, NY, USA

07/2025 – 09/2025

Research Workshop

- Engineered a Python-based financial modeling system utilizing Markowitz Mean-Variance and Single-Index models to optimize a 10-asset portfolio under ESG constraints.
- Implemented numerical optimization algorithms (SciPy) to compute the global minimum variance and maximum Sharpe ratio portfolios, analyzing effects under leveraged/unleveraged and ESG-screened scenarios.
- Visualized results through Efficient Frontier and Capital Market Line analysis, demonstrating that ESG integration can enhance risk-adjusted returns, challenging the conventional performance trade-off narrative.

NYC Department of Finance | Full-time, New York, NY, USA

05/2023 – Present

Business Research and Data Analytics Specialist

- Developed high-accuracy predictive models using SAS and R to estimate commercial and residential property values across five tax classes, improving valuation accuracy by 1.03% and supporting the city's annual tax levy.

- Conducted in-depth econometric analysis on datasets of 100,000+ property listings, processing and integrating data from 20+ different source formats.

Missouri Social Science Experimental Laboratory | St. Louis, MO, USA

03/2022 – 03/2023

Research Assistant

- Applied text mining techniques in Python to collect, catalog, and evaluate experimental data for studies in behavioral economics and decision-making.
- Collaborated within a multidisciplinary team to support the end-to-end execution of research projects.

Energy Sector Investment Research Project | St. Louis, MO, USA

09/2022 – 12/2022

- Assessed the Security Market Line for a portfolio of energy stocks using the CAPM model and 5 years of historical data.
- Executed a comparative analysis of EV/EBITDA ratios across 20 firms, identifying two high-potential investment opportunities projected to increase portfolio value by 15% within a 12-month horizon.

PUBLICATIONS

Zheng, T. (2025). *ESG Factors in Financial Investment: Analysis and Application on Portfolio Optimization*. Proceedings of the 5th International Conference on Management and Education, Humanities and Social Sciences, Liverpool, UK.

PROJECTS

Wells Fargo Asset Management Competition | Ranked 1st out of 40+ Teams

01/2022 – 03/2022

- Managed a \$500,000 simulated portfolio using Morningstar, achieving a 23% annual return with the lowest volatility across all teams.
- Generated weekly client reports featuring ESG analysis, cryptocurrency market commentary, and detailed performance attribution.

SKILLS

- Programming & Data Science:** Python (Pandas, NumPy, SciPy, Scikit-learn), R, SAS, SQL, MATLAB, C++, Java, Tableau
- Quantitative Finance:** Portfolio Optimization, Financial Modeling, Econometrics, Machine Learning, Risk Management
- Financial Platforms:** Bloomberg, Morningstar
- Certifications:** SAS Certified Professional: Advanced Programming Using SAS 9.4 (2025), SAS Certified Specialist: Base Programming Using SAS 9.4 (2024), CFA Level II (passed)
- Languages:** Chinese (Native), English (Fluent)

HONORS & AWARDS

- Charles F. Knight Scholar (Top 3%) – Washington University in St. Louis (2022)
- Beta Gamma Sigma Honor Society (Lifetime Member, Top 10%) – Washington University in St. Louis (2022)
- Scholarship for Outstanding Undergraduate to Go Overseas – NCEPU (2019)
- Excellent Scholarship for Literary and Artistic Activities – NCEPU (2018)