

Beichen Zhang

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Academic Appointments

University of Massachusetts Amherst, Isenberg School of Management — Amherst, MA

Lecturer in Finance, Department of Finance

September 2026–Present

Teach undergraduate and graduate courses in finance and financial technology.

Develop course materials and experiential learning activities covering FinTech, artificial intelligence in finance, digital assets, financial infrastructure, and emerging technologies.

Research Interests

Fintech, Empirical Asset pricing, Risk management, Cryptocurrency market, Factor models, Hawkes process, Link function, Market sentiment

Education

Stevens Institution of Technology, Hoboken, NJ, USA

Ph.D. candidate in Financial Engineering, School of Business

2020 - 2026

M.A., Financial Engineering, with Thesis

2018 - 2020

Miami University, Oxford, OH, USA

2014 - 2018

B.S., Mathematics and Statistics; Minor: Actuarial Science

B.A., Economics

Job Market Paper

Risk disclosure premium in the cross-section of stock returns: A generative topic modeling approach

- **R&R** (2026), *The European Journal of Finance*
- *Presentations*: LDME Conference (2025); FEBS Conference (2025);
Inform Annual Meeting Presentation & Poster Session (2025);
Stevens FE Brownbag, PhD Showcase and Seminar (2024, 2025)
- *Description*: Extract interpretable firm-level risk factors from 10-K risk disclosures using LLM and ETM (embedding topic modeling) and show that several of these disclosure-based risks, such as financial condition, new product introduction and operational risk, are economically and statistically significantly, can explain cross-section returns beyond traditional fundamentals.

Publication & Conference Preceding

Cryptocurrency contagion with market sentiment jumps: A study of high frequency cross effect

- **Published** (2025), *The European Journal of Finance*
- *Presentations*: Stevens FE PhD Seminar (2023), Stevens FE PhD Showcase (2024)
- *Description*: We show, using high-frequency Hawkes models, that Bitcoin, equity market (S&P500) and sentiment (VIX) exhibit two-way jump contagion. Positive Bitcoin jumps persist unusually long, consistent with FOMO-driven feedback between crypto and traditional markets.

Financial Risk Disclosure Return Premium: A Topic Modeling Approach

- **Published Conference preceding** (2024), *IEEE CIFE*
- *Conferences*: IEEE CIFE Conference (2024), Stevens FE PhD Seminar (2022)

Work In Progress

Cryptocurrency Jump Contagion - link function & non-parametric method

- *Description:* We use a non-parametric method to estimate the high-frequency Hawkes process. Capture the contagion between multiple assets: Bitcoin, equity market (S&P500), gold, currency (dollar, yuan,...)

Teaching Experience

Lecture, UMass Amherst

FIN 304: Financial Modeling	2026 F
FIN 408: Topics in Financial Technology	2026 F
SCH-MGMT 654 - Advanced FinTech	2026 F

Instructor, Stevens Institute of Technology

QF343: Stochastic Calculus (Undergraduate)	2026
FE 515: Introduction to R Language (Graduate); 4.7/5 on average	2022 - 2026
QF 104: Data Management in R Language(Undergraduate)	2025
FIN 515: Financial Decision Making (Graduate); 4.78/5	2025

Teaching Assistant, Stevens Institute of Technology

Algorithmic Trading Strategy (Graduate)	2024
Statistical Learning in Finance (Graduate)	2022 -2023
Introduction to Market Microstructure (Graduate)	2022
Data Visualization and Applications (Graduate)	2022
Econometric (Graduate)	2021
Portfolio Theory and Applications (Graduate)	2021
Pricing and Hedging (Graduate)	2020 - 2021
Intermediate Microeconomic Theory (Undergraduate)	2017 - 2018
Examining Economic Data and Models (Undergraduate)	2017

Professional Experience

ZheJiang Post and Telecommunication Co., ChangChun, China
Risk Management Director Assistance 2023

Supported the Risk Management Director by identifying, assessing, and monitoring enterprise risks; prepared reports, analyzed compliance metrics, and coordinated audits to drive timely mitigation and regulatory alignment.

Orient Security Co. XiAn, China
Quantitative Investment Analyst 2021

Conducted quantitative research for portfolio construction and asset allocation by developing and backtesting ML/statistical trading models; analyzed cross-asset data to identify risk factors and alpha drivers, and partnered with PMs to deploy models and deliver attribution/risk reporting.

Conference & Seminar Presentations (*by co-authors)

2025	Leading and Managing in Digital Era (LDME)*, Financial Engineering and Banking Society (FEBS)* Inform Annual Meeting Presentation - SA Tech Session* & Poster Session Stevens Ph.D. BrownBag
2024	IEEE Computational Intelligence for Financial Engineering and Economics (CIFEr) Stevens Ph.D. Financial Engineering Seminar & Showcase
2023	Stevens Ph.D. Financial Engineering Seminar

Certifications

Algorithmic Trading Strategies	2026
Financial Risk Management I (FRM I)	2024
Financial Security Analytics	2020
SOA Financial Mathematics (FA)	2019
PADI Advanced Open Water (Enriched Air)	2022
WSET Wine I; Bartending; Hunting	2022
Saxophone level VI	2010

Honors & Awards

Stevens Institute of Technology	
Provost Doctoral Fellowship	2020 - Present
FE PhD Graduate Conference Grant	2024, 2025
FRM Scholarship	2024
Miami University	
Paul M. Vail Award (Economic)	2018
Farmer School of Business Scholarship	2018
Dean's Honors List	2017 - 2018

Skills

Languages: English (fluent), Mandarin (native), Japanese (Intermediate)

Programming: Proficient in Python, R; familiar with MySQL

Software: LATEX, Bloomberg Terminal, Tableau, Stata

Others: Machine Learning in Finance; Generative AI, Embedded Topic Modeling

Membership

Financial Management Association (FMA)
Social Science Research Network (SSRN)
Society of Actuary (SOA)
Global Association of Risk Professionals (GARP)
Center of Research toward Advancing Financial Technology (CRAFT) - National Science Foundation (NSF)

References

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Dr. Dan Pirjol
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