

Zihan (Irene) Tang

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EDUCATION

New York University

New York, NY

Master of Financial Engineering

Sept 2021 – May 2023

- GPA: 3.98/4.0
- Major modules: Financial Risk Management, Stochastic Calculus and Options Pricing, Valuation for Financial Engineering

Dickinson College

Carlisle, PA

Bachelor of Mathematics | Bachelor of Quantitative Economics

Sept 2017 – May 2021

- **Honors: Summa Cum Laude**
- GPA: 3.97/4.0
- Major modules: Calculus, Integration and Infinite Series, Probability and Statistics, Linear Algebra, Abstract Algebra, Real Analysis, Complex Analysis, Graph Theory, Microeconomics, Macroeconomics, Applied Econometrics

RESEARCH & PROJECT EXPERIENCE

An empirical study on the Optimal Capital Structure

Sept 2022 – Dec 2022

Supervisor: Prof. David Shimko

- Analyzed current influencing elements and examined capital structure modeling ideas.
- Qualified costs and advantages of debt, taxes, and other considerations using option pricing model.
- Used stochastic process to simulate the dynamic capital restructuring processes and developed an optimization model using updated M&M theory.
- Proposed use of Excel and MATLAB for data analysis.

Development of the Financial Market and Economic Growth: A literature review specific to the United States

Supervisor: Prof. Nicola Tynan

Feb 2021 – May 2021

- Retrieved essential theorems and models after filtering and carefully reading research publications on relevant subjects.
- Reviewed, classified, and assessed the reasoning's supporting economic theories and mathematical models.
- Gathered and analyzed the data in order to reveal the trajectory of the global and American financial markets' expansion.

Application of Abstract Algebra in Algebraic Coding Theory (Independent Study)

Oct 2019 – Dec 2019

Supervisor: Prof. Barry Tesman

- Held weekly discussions on Coset decoding, Matrix transformation, Rings, Fields, Linear and Cyclic codes.
- Created formal posters by connecting theorems and visualizing ideas and held open presentation on campus.

Graph Theory Approach to the Travelling Salesman Problem (Research Project)

Sept 2019 – Oct 2019

Supervisor: Prof. Barry Tesman

- Simplified problems from a difficult real-world issue.
- Created an interactive mini lab in Java to demonstrate the TSP path selection algorithm's process.
- Presented the research that demonstrated basic ideas connected to permutations.

Value Investing Project-based Online Research Program

Supervisor: Prof. Egor Matveyev

Jun 2019 – Aug 2019

- Equipped quantitative ways for analyzing and comparing company investment value.
- Applied market data to import measuring indicators and explained their arithmetic.
- Synthesized investment advice by comparing metrics horizontally with firms in the same sector.

Research Replication: "Do employers favour Whites over African-Americans in job applications?"

Supervisor: Prof. Tony Underwood

Feb 2019 – May 2019

- Used R to clean the data and found four more possible variables and used Stata to create OLS regression using various sets of variables.
- Identified variables relevant to hypothesis with test findings.
- Increased model accuracy by 4% when compared to the initial suggested regression model.

Analysis of On Campus Water Usage by Living Situation (Research Project)

Jan 2019 – Mar 2019

Supervisor: Prof. Jeffrey Forrester

- Gathered data from the campus sustainability webpage and used R to address bias and missing values.
- Used pair t-test, interpreted findings and visualized regression results.

PROFESSIONAL EXPERIENCE

China International Capital Co., Ltd Beijing, China
Dept of Investment Banking | Internship Sept 2020 – Oct 2020

- Extracted information from corporate reports and co-authorized a customized asset support strategy.
- Matched 23 firms' data, producing confirmation letters for agreements made in the first half of 2019.

Plug and Play China Beijing, China
Fintech Vertical | Venture Analyst May 2020 – Dec 2020

- Participated in banking industry study, used Excel to summarize the technology, business strategy and fintech industry of 15 prominent Chinese banks.
- Found trends and possibilities for Fintech applications, picked business strategies, and estimated the achieved value.
- Searched for the most recent financial application projects and technologies, conducted market fundamental research to weed out suitable investment options.
- Organized online conferences: planned timeline, produced posters and articles, arranged 4 branch company representatives, supervised rehearsal, and follow-up modifications, and managed live meetings.

Bank of China Head Office Beijing, China
Dept of Risk Management | Internship Jun 2019 – Aug 2019

- Used Bloomberg to track market developments and discovered trading market conditions.
- Recorded relationship dynamics and performed a risk analysis.
- Used Excel to check the internal transaction record system for calculation problems.

Deloitte Beijing, China
Dept of Audit | Internship July 2018 – July 2018

- Finished the sales department reports and obtained the director's cash flows.
- Gathered contracts, confirmed the status and value, noted the current period status, and contacted with the person in charge to confirm the cause in order to lock the subject of contract audit.
- Complied and updated the project system's primer's prerequisites section.

ACADEMIC ACTIVITIES

Member of Mathematics & Computer Science Majors Committee, Dickinson College 2019 – 2021

- Student Representative. Evaluated courses regarding the structure and context, collected feedback from peers.

Teaching Assistant, Dickinson College 2018 – 2020

- Held office hours every week answering questions in courses of Single and Multi-variable Calculus, Linear Algebra.

Mathematics Seminar, Chinese Academy of Sciences Sept 2021 – Dec 2021

- Participated in the discussions in Differential Geometry, topics included Levi-Civita symbol, Gradient operators and Laplace operators under curvilinear coordinates

AWARDS

• Graduate School of Engineering Scholarship, New York University Sept 2021 – May 2023

• Dean's List, Dickinson College 2017 – 2019

• Phi Beta Kappa, National Academic Honor Society May 2021

• Pi Mu Epsilon, National Honor Society of Mathematical Science Apr 2021

• Alpha Lambda Delta, Association of College Honors Societies Jan 2018

LANGUAGES & SKILLS

Languages: English (GRE 328 159+169), Mandarin, Korean

IT Skills: R, Stata, Latex, Excel, Python, MATLAB

Certificates: CFA Level I, FRM Level I