HAORAN (EDMUND) TIAN

202 W Hill St., Chicago, IL, 60610 | (734) 934-3210 | edmundht@uchicago.edu | LinkedIn | GitHub

EDUCATION

THE UNIVERSITY OF CHICAGO — **Chicago, Illinois**
Master of Science in Financial Mathematics — **September 2022 - June 2024**
Coursework: Portfolio Theory, Python, Option Pricing, Quantitative Trading Strategies, Stochastic Calculus, Advanced C++, Numerical Methods, HPC, Bayesian Statistical Inference and Machine Learning, Optimization, Time Series Analysis

THE UNIVERSITY OF MICHIGAN, ANN ARBOR — **Ann Arbor, Michigan**
Bachelor of Science in Mathematics — **September 2018 - May 2022**
Courses and Activities: Mathematical Statistics, Machine Learning, Data Structures and Programming, Differential Equations, Linear Optimization, Honor Analysis, Financial Accounting, Linear Algebra, Intermediate Microeconomics & Macroeconomics

PROJECTS

REINFORCEMENT LEARNING IN TRADING — **September 2023 – December 2023**
- Implemented a reinforcement learning model to compute optimal execution paths of a larger order in the style of Almgren et al.

GREEN PREMIUM TRADING STRATEGY — **September 2023 – December 2023**
- Implemented a trading strategy for equities in Oil Industry that incorporates sustainable investing and macro sentiment analysis

SKILLS

Python, C++, SQL, Tensorflow, R, MATLAB; Financial Markets, Machine Learning, Fixed Income, Foreign Exchange

EXPERIENCE

BODHI RESEARCH GROUP — **Chicago, Illinois**
Quantitative Research Intern — **July 2023 – September 2023**
- Presented various new metrics such as Omega score, Sortino Ratio and Alpha to evaluate emerging managers' performances
- Implemented a portfolio construction algorithm in the principle of quantile trading and clustering method, culminating into a weighted portfolio back-tested to have a 41% cumulative return and 14% Sharpe ratio with time-series data of emerging funds

NEUBERGER BERMAN INVESTMENT ADVISORS LLC — **Chicago, Illinois**
Quantitative Research Intern, Project Lab — **March 2023 – June 2023**
- Collected, cleaned, processed datasets from WRDS and implemented enhanced Shumway's hazard model to predict corporate bankruptcy using Neural Networks, Gradient Boosting and Random Forest, pushing precision and recall to 99% and 92.7%

Quantitative Research Intern, Project Lab — **Jan 2023 – March 2023**
- Evaluated auto asset-backed securities default performance concerning ESG factors by using logistic regression, random forest and neural network to identify and validate the most significant factors; Presented to senior members conclusions such as Environmental relevance and macroeconomics neutrality as part of broader ESG integration in fixed income investments

CHINA RESOURCES CAPITAL MANAGEMENT LIMITED — **Beijing, China**
Venture Capital Summer Analyst — **July 2019 – September 2019**
- Performed industry research and due diligence using Thompson One, maintained financial models, and drafted investment thesis and presentations for prospective companies in the physical therapy industry in US and China such as SinoRehab

CHINA GREAT WALL ASSET MANAGEMENT CO. — **Shanghai, China**
Summer Analyst — **May 2019 – June 2019**
- Compiled due diligence research on distressed debt collateral properties and real estate industry in Shanghai, China
- Shadowed corporate management in meetings and negotiations between banks and asset managers

RESEARCH

LOG(M) - LAB OF GEOMETRY AT MICHIGAN — **January 2022 – April 2022**
- Implemented Newton-GMRES optimization method in C++ to numerically solve Rayleigh-Bérnard convection equations, authored an academic paper, and presented the poster to Department of Mathematics at University of Michigan

EXPLORATION IN MATHEMATICS — **January 2021 – April 2021**
- Derived theorems and lemmas related to Random Walk and Almost Orthogonal Matrix while supervised by Dr. Patrick Boland and Giuseppe Martone; Implemented algorithms/visualization and authored two 15-page academic papers

XENON1T PROJECT, NI GROUP AT UC SAN DIEGO — **December 2017 – July 2018**
- Analyzed single-electron data using a specialized *hax* package in Python and learned about hit, peak and event identification
- Worked to optimize the liquid Xenon detector's electric field configuration under the supervision of Prof. Kaixuan Ni and Dr. Jingqiang Ye, initiated Journal Club and presented two ways to improve the dark matter search sensitivity

EXTRACURRICULAR

Vice President of External Relations, Michigan Finance and Mathematics Society — **September 2019 – August 2022**
Quantitative Analyst, Michigan Investment Group-Algorithmic Trading Group — **January 2019– August 2022**
Vocalist, Vocal Studies Program — **September 2022– June 2024**
Print Photo Editor, Street Style Editor, Model, SHEI Magazine — **January 2021– August 2022**
Pledge Class Philanthropy Chair, Beta Theta Pi Fraternity Lambda Chapter — **January 2019 – August 2022**

ADDITIONAL INFORMATION

Awards: British Biology Olympiad First Prize (*Royal Society of Biology*), Chinese National Biology Olympiad Second Prize
Interests: Photography, Fashion, Music (The Killers, Maggie Rogers), Michigan Football, Poker, Cooking and Skydiving