Tianyu (Henry) Wu

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EDUCATION

Northwestern University   *December 2024*
M.S. in Machine Learning and Data Science (MLDS, formerly M.S. in Analytics)   **Evanston, IL, U.S.**
- Key Courses: Predictive Analytics, Databases & Information Retrieval, Data Mining (Winter 2024), Generating Business Value with Analytics (Winter 2024), Cloud Engineering for Data Science (Spring 2024)
- Participated in a 9-month industry practicum project alongside a team of students and partners from an international clothing retailer leader, applying MLDS coursework to the resolution of a pressing business need.

Duke Kunshan University (DKU) / Duke University (Duke) Dual Degree Undergraduate Program   *May 2023*
B.S. in Applied Mathematics and Computational Science/Mathematics (Latin Honors conferred by DKU)   **Kunshan, China**
B.S. in Interdisciplinary Studies (Applied Math & Computational Science; Math, by Duke)   **Durham, NC, U.S.**
- GPA: 3.9/4.0 (Top 5%)
- Full Merit-based Scholarship recipient; National Scholarship recipient; DKU Summer Research Fellowship recipient
- Inaugural Member and Chairperson of DKU Student Alumni Board and Student Ambassador Committee
- Honorable Mention, Mathematical Contest in Modeling (MCM) 2020

SKILLS

Programming and Software Skills: Python, R, SQL, Tableau, SAS, MATLAB, Julia
Other Technologies: Machine Learning (Scikit-Learn, TensorFlow), Data Engineering (Hadoop, Spark), A/B Testing
Business Skills: Microsoft Suite, Business Writing, Business Communication, Crital Thinking, Positive Energy
Languages: English (Professional), Mandarin (Native), German (Intermediate), Cantonese (Basic)

PROFESSIONAL EXPERIENCE

1Token   *July 2022 – November 2022*
Growth Data Science Intern   **Shanghai, China**
- Established and orchestrated an automated tracking and analysis pipeline utilizing Robot Process Automation (RPA) applications, consolidating data from over 2,000 crypto-related financial institutions globally.
- Implemented the Support Vector Machines (SVM) algorithm as a natural language processing tool independently to identify and engage potential business clients within the crypto market across diverse channels, enhancing targeted marketing strategies.

CITIC Securities Company Limited   *June 2021 – August 2021*
Business Development Intern   **Shanghai, China**
- Developed advanced pricing models for snowball options, targeting the China Secuities's Smallcap 500 Index, through Monte Carlo Simulation and Finite-Difference Partial Differential Equation Methods separately to optimize pricing strategies.

Bank of China   *May 2020 – July 2020*
Summer Intern, Individual Digital Finance Department   **Nantong, China**
- Redesigned the Individual Customer Information Quality Management Classification system by integrating consumer behavior analysis, resulting in a remarkable 50% increase in system efficiency, which overall streamlined the data management processes.

RESEARCH EXPERIENCE

Understanding Waiting Time in Transaction Fee Mechanisms | Grants Awarded by Ethereum Foundation
Research Fellow   *February 2022 – October 2022*
- Utilized deep reinforcement learning model to extend and analyze the dynamics of the Ethereum Transaction Fee Mechanism, advancing the understanding of waiting times and transaction behaviors.
- Authored a comprehensive tutorial guide outlining a systematic approach to process mempool data from the Ethereum blockchain, contributing valuable insights to the research community.

How FinTech Empowers Asset Valuation: Theory and Applications | Summer Research Fellowship, DKU
Research Assistant/Group Lead   *May 2021 – October 2021*
- Conducted an extensive backtesting of a selected basket of stocks and cryptocurrencies on daily closed prices from Alpha API, using moving averages, volume-weighted averages, sentiment analysis, and pair trading strategies to evaluate performance.
- Proposed a generally applicable data science pipeline for designing, programming, and evaluating different trading strategies to enhance crypto asset valuation.

LEADERSHIP & SERVICE

SciEcon CIC (Non-Profit Organization)   *May 2021 – May 2023*
Inaugural Member, Executive Chair of Supertalent Program   **Remote/London, U.K.**
- Headed a team of five members in collaboration with a leading Swiss-based consulting firm specializing in the blockchain industry, to equip a decentralized content moderation platform client with strategic insights in enhancing its market presence.
- Led the creation of a new whitepaper, elucidating the existing business challenges and presenting the client's innovative solutions for enhancing and regulating the content moderation process taking place on the Internet Computer Protocol.
- Performed a comparable company analysis, thoroughly evaluating the clients' current performance and market positioning.