

Malcolm Hsu

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EDUCATION

Brandeis University, School of Business and Economics

Waltham, MA

Candidate for Master of Science in Business Analytics (STEM-Designated)

08/2025 - 05/2026

Concentration: Artificial Intelligence

Relevant Coursework: Generative AI, Machine Learning, Advanced Data Analytics, Natural Language Processing

Wesleyan University

Middletown, CT

Bachelor of Arts in Mathematics and in Economics

09/2022 - 05/2025

Relevant Coursework: Applied Time Series Analysis, Advanced Econometrics, Probability, Advanced Topics in Real Analysis

TECHNICAL SKILLS

Programming Languages: R (Advanced), Stata (Advanced), Python (Advanced), SQL (Intermediate)

Computer Software: Microsoft Excel, Tableau, GitHub

Analytics: Time Series and Panel Data Analysis, Machine Learning, Gen AI, Predictive Modeling, Cross Validation, Large Language Models, Application Programming Interfaces, Data Gathering, Manipulation, and Visualization

Baseball Software: Trackman, NewtForce, HitTrax, Hawkin Dynamics

WORK EXPERIENCE

Wesleyan University

Middletown, CT

Research Fellow

06/2025 - Present

- Conduct time series analysis on U.S. arms development patents dating back to the 1820s, using models such as TAR, VAR, Markov models, and regression techniques to identify innovation drivers and forecast future trends
- Visualize historical patent patterns through graph-based insights, highlighting the influence of key historical periods on arms-related innovation
- Develop and train a Large Language Model (LLM) to enhance and simplify data scraping and collection methods
- Deliver research findings through presentations to Wesleyan's Center for the Study of Guns & Society

Brandeis University

Waltham, MA

Research Assistant

06/2025 - Present

- Analyze situational game data from Baseball Reference, FanGraphs, and Retro Sheet to uncover key factors that influence run scoring and team wins
- Develop presentations on the role of Sabermetrics in the evolution of baseball analytics, highlighting data sourcing, cleaning, and analytical methodologies for professor's academic use

Kinetic Performance Institute

Morgan Hill, CA

Lead Data Analyst

12/2023 - 05/2025

- Identified key performance indicators from data collection platforms to support coaching decisions
- Built visual models of data so athletes can understand underlying trends and identify strengths and weaknesses
- Analyzed individual level metrics with the goal of designing an actionable predictive modeling system that provides each athlete with an individualized training regimen

TRIO Upward Bound Program

Middletown, CT

Intern

10/2022 - 12/2023

- Examined student data collected from school platforms and Qualtrics to publish academic standing letters and file past grades
- Conducted introductory interviews with prospective students looking for placement
- Designed templates for progress reports, academic updates, and posters to distribute to promote program

Tyan Computer Corporation

Newark, CA

RMA Intern

05/2023 - 08/2023

- Tested and validated computer systems and motherboards using Linux and UEFI shell integration
- Assembled and disassembled chassis systems and set up computers for motherboard testing

ACTIVITIES/INTEREST

Activities: Varsity Baseball (Brandeis University 2025 - Present), Wesleyan University Varsity Baseball Captain (2023 - 2025, UMass Dartmouth 2022)

Awards: San Francisco Giants Ambassador All-Star Award (2022 for Outstanding Community Service)