

Ruixi Hu

hurx@umich.edu

EDUCATION

University of Michigan B.S. in Mathematics with Honors GPA: 3.752/4.0 Core Courses: Real Analysis, Optimization, Statistical Inference, Data Structures and Algorithms	Ann Arbor, MI Expected, Fall 2024
University of Michigan M.S. in Mathematics GPA: -/4.0	Ann Arbor, MI Expected, Winter 2025

PROFESSIONAL EXPERIENCE

Huatai Securities Quantitative Analyst Intern	Shanghai, China May 2024– Aug 2024
<ul style="list-style-type: none">Developed and implemented RNNs, Gradient Boosting, and k-NN models in Python to enhance factor investing strategies, resulting in a 15% improvement in predictive accuracy.Collaborated with a team of 6 data scientists and financial analysts to successfully integrate machine learning models into the firm's investment processes.	

ACADEMIC PROJECTS

Comparison of quantitative trading alphas	Jan 2024– Apr 2024
<ul style="list-style-type: none">Compared 10+ quantitative trading alphas across various asset classes, identifying the top-performing strategies with a 20% higher Sharpe ratio in RConducted statistical analysis on over 50,000 trade signals, leading to the optimization of 3 key alpha strategies	
Simulates Euchre: supporting a AI player and a Human player	Sep 2023– Dec 2023
<ul style="list-style-type: none">Developed a Euchre game simulation in C++, focusing on Abstract Data Types, Derived Classes, Inheritance, and PolymorphismUtilized C++ Object-Oriented Programming principles, creating 4 virtual functions and 3 derived classes to model players and game actions	
Comparison of unconstrained nonlinear optimization algorithms	Jan 2023– May 2023
<ul style="list-style-type: none">Evaluated the performance of 10 optimization algorithms (including line search and trust region types) across 12 benchmark problems, focusing on convergence speed and solution accuracyImplemented and tested 2 line search methods (Backtracking and Wolfe) and a conjugate gradient method in Matlab for solving sub-problems in trust region algorithms.	

TEACHING

Teaching Assistant, Math 351 Principles of Analysis	Winter 2024
Teaching Assistant, Math 451 Advanced Calculus I	Fall 2023

AWARDS & SCHOLARSHIPS

University Honors	May 2024
University Honors	Dec 2023
Sophomore Honors Award	Aug 2023
Department of Mathematics Working Student Scholarship	Jun 2023
University Honors	Apr 2023
University Honors	Dec 2022
Chinese Academy of Sciences Fellowship	Jun 2022
The Chinese Mathematics Competition, CMC First Prize	Jan 2022

EXTRA-CURRICULAR ACTIVITIES

University of Michigan CSSA

Aug 2022– Present

Officer, General Secretary Department

- Recruited and trained the members of the department; arranged work schedules for the department
- Identified hot topics and queries among students; researched and extracted effective information to compose and typeset 50+ WeChat official articles, reaching out to 20,000+ students

SKILLS

- Language: English(native), Chinese(native), German(Conversational)
- Programming Language: C, C++, MATLAB, Python, R, SQL, LaTeX
- Business communication, Project management, Data visualization, Microsoft Office