

Ruixi Hu

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EDUCATION

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| 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

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| 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

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| 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

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

AWARDS & SCHOLARSHIPS

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| 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, LaTeX
- Business communication, Project management, Data visualization, Microsoft Office