Harry Huang

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Research Interest

Reinforcement Learning, Computational Complexity Theory, Learning Theory, Algorithms

Education

University of Wisconsin - Madison   Jan 2024 - May 2027
BS in Computer Science with Honors, BS in Mathematics with Honors   (Expected)
- GPA: 3.958/4.0
- **Coursework:** MATH 521 Analysis I, MATH 541 Modern Algebra, MATH 551 Elementary Topology, MATH 475 Introduction to Combinatorics, COMP SCI 540 Introduction to Artificial Intelligence, MATH 341 Linear Algebra

Nanjing University of Posts and Telecommunications   Sep 2022 - Jan 2024
BS in Computer Science and Technology   (Transferred)

Nanjing Foreign Language School   Sep 2019 - Jun 2022
- Participating in Olympiad in Informatics, and won national first prizes every year during my three years of high school.
- Member of Algorithm Club

Experience

Directed Reading Program in University of Wisconsin Madison   Feb 2025 - Present
- We explore graph theory from a proofs based perspective with a few algorithms on graphs (beyond Dijkstra's). The study will follow Douglas West's: Introduction to Graph Theory very closely.
- Ideally, the study cover some concepts of connectivity, bipartite matchings, graph colouring Algorithms such as Edmonds-Karp for network flow would be included as it covers both parts 2 and 3.

Machine Learning Student Researcher in University of Wisconsin Madison   Jan 2025 - Present
- Working on research in Reinforcement Learning with Prof. Josiah Hanna.

Machine Learning Peer Mentor in University of Wisconsin Madison   Jan 2025 - Present
- Holding office hours 5 hours every week to help students with programming assignments and lectures;
- Assisting students in the implementation of advanced machine learning algorithms, including Linear Algebra and PCA, NLP (Natural Language Processing), Unsupervised Learning, Neural Networks, Deep Learning, Reinforcement learning, etc.

Leetcode Club Leadership Team in University of Wisconsin Madison   Oct 2024 - Present
- Giving lectures about data structures, algorithms, and programming skills.
- Holding meetings every two weeks.

ICPC Team in University of Wisconsin Madison   Oct 2024 - Present
- Participating in various competitive programming contests, including NAC(North America Championship), NCNA(ICPC North America North Central Regional), etc.

Computer Science Learning Center Tutor in University of Wisconsin Madison   Sep 2024 - Dec 2024
- Working as volunteer peer mentor of COMP SCI 200/300/400/252

Algorithm Team of Student Association of Science and Technology in Nanjing   May 2023 - Dec 2024
University of Posts and Telecommunications
- Holding lectures about algorithms and general mathematics knowledge (number theory, combinatorics, game theory).
- Providing problems for all university programming competition.

Student Researcher in Nanjing University of Posts and Telecommunications   Jan 2023 - Apr 2023
- Studied the performance of a graphene material.

Honors & Awards

Champion of International Collegiate Programming Contest (ICPC) - North Central NA Regional Contest   Nov 2024

- 1st among 96 teams. The only team solved 9 of the problems.

Dean's List   May 2024

- For students with scholastic achievements.

Silver Medal of China Collegiate Programming Contest (CCPC) - Jiangsu Province Contest   May 2023

National First Prize in National Olympiad in Informatics in Provinces (NOIP)   Nov 2021

Technologies

Languages: C++, C, Java, Python, HTML, CSS, JavaScript

Technologies: Dynamic Planning, Reinforcement Learning, Machine Learning, Algorithm Optimization, Competitive Programming, Teaching