Richard Hu

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EDUCATION

UC BERKELEY

B.S. in Electrical Engineering and Computer Science
May 2022
College of Engineering
GPA: 3.9 / 4.0

COURSEWORK

BERKELEY

Data Structures
Efficient Algorithms and Intractable Problems
Probability and Random Processes
Introduction to Artificial Intelligence
Discrete Mathematics and Probability Theory
Machine Structures

OTHER

Linear Algebra
Machine Learning

SKILLS

LANGUAGES

Advanced:

- Java
- Python

Familiar:

- C
- C++
- SQL

SOFTWARE

- Git
- PyTorch
- Unix-like operating systems

OTHER

- Unit and integration testing
- LaTeX
- Statistics and probability
- Machine learning

EXPERIENCE

BERKELEY EECS DEPARTMENT
Undergraduate Student Instructor (uGSI)
June 2020 – Present | Berkeley, CA

- Teaching discussion sections of 40 students twice a week and holding weekly office hours for Discrete Mathematics and Probability Theory
- Contributing to weekly staff meetings with professors and other uGSI's to create plans for incoming weeks

PROJECTS

CHESS AI | June 2020 - Present

- Developing a Chess AI in Java that plays using a multi-threaded Monte Carlo tree search with a random rollout policy
- Current single-threaded AI **capable of beating top-1000 ranked players** on Daily mode on chess.com

LINES OF ACTION | March 2020 - April 2020

- Implemented Lines of Action board game in Java playable via command line or GUI using AWT and Swing
- Optimized an alpha–beta pruning game tree search heuristic that **won 2nd place** in 500-entrant tournament

SILAS | October 2019 - December 2019

- Created linear algebra command line utility using Python and NumPy to help students visualize computations in EECS 16A
- **Substantially improved** many users' understanding of elementary matrix operations

HEX ROCKETS | September 2018 - January 2019

- **Collaborated with team of friends** to develop and maintain a Java cross-platform mobile game teaching hexadecimal arithmetic
- **Won the Congressional App Challenge** and received over **500 installs** across iOS and Android with **primarily 5-star reviews**