Brighten Zhang

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Skills

Languages HTML, CSS, C/C++, Python, Java, JavaScript, Racket
Tools & Frameworks React.js, Django, Flask, Git, Heroku, Visual Studio

Projects

Moraband Chess Engine | Github

- Developed a UCI-compatible chess engine in C++ using modern search and evaluation techniques to explore areas of professional software design and project management
- Applied a traditional alpha-beta algorithm within a nega-max framework and iterative deepening
- Incorporated transposition tables and tapered material values in evaluation functions
- Hosted a Lichess BOT account on the Heroku cloud as a python app using worker dynos

Wordpredictor | Github

- Implemented a trigram language model in Python using the nltk module to predict the next word in a sentence
- Integrated with SQLite3 for a simple Discord chatbot application capable of basic conversations

imgdb image host | Github

- Built an image-hosting web app using Node JS to easily share images publicly
- Hosted on Repl.it for easy access

Work Experience

Summer Camp Counsellor — City of Toronto

Jul. 2021 - Aug. 2022

- Collaborated with other counsellors to design and lead engaging camp activities for young children aged 6 to 12
- Fostered positive social connections between campers and eased pandemic anxiety
- Maintained clear communication with parents and guardians

Open Gym Monitor — City of Toronto

Jan. 2022 - Apr. 2022

- Monitored gym activities during open recreation hours and distributed sports equipment

Education

University of Waterloo, Candidate for BASc Computer Science, GPA: 90.0/100

Sep. 2022 - Apr. 2027

- President's Scholarship of Distinction (2022 & 2023)
- Applied ideas and concepts from the functional programming paradigm to solve algorithmic problems using Racket in CS135: Designing Functional Programs
- Developed critical presentation skills and applied speech design concepts in SPCOM223: Public Speaking
- Currently taking CS 136: Elementary Algorithm Design and Data Abstraction

Math and Computing Contests

USACO Promoted to the Gold division during the United States Computing Olympiad's February 2022 contest
CCC Scored in the top 25% of contestants on the 2022 Senior Canadian Computing Competition
Euclid Scored in the top 25% of contestants on the 2022 & 2021 Euclid Mathematics Contest