ARNAV MEHRA

(317) 690-9263 Home Address: 12141 Limestone Dr, Fishers, IN 46037 Website: arnavmehra.com
mehra23@purdue.edu Campus Address: McCutcheon Hall, West Lafayette, IN 47906 LinkedIn: linkedin.com/in/arnavmeh

EDUCATION

Purdue University, West Lafayette, IN Expected Graduation: *May 2024*
Bachelor of Science in Computer Science GPA: 4.00/4.00
Hamilton Southeastern High School, Fishers, IN Graduation: *Jun. 2021*
Academic Honors Diploma GPA: 4.85/5.00

EXPERIENCE

Data Mine Corporate Partners, Purdue University *Jan. 2022 – May 2022*

- Worked in teams to analyze company data via Pandas, NumPy, and scikit-learn in Python
- Produced actionable insight on client relationships and market penetration tactics
- Trained linear regression and nearest neighbor models to predict potential liabilities

Rubik's Cube Solver, Purdue University *Dec. 2021 – May 2022*

- Conducted preliminary research and testing on various computer algorithms used in solving Rubik's cubes, including iterative deepening, pruning methods, and Kociemba's algorithm
- Produced a C++ algorithm that solves two-by-two scrambles in under two seconds and capable of solving three-by-three scrambles in under ten seconds

Discussion Forum, CS 18000, Purdue University *Sept. 2021 – Nov. 2021*

- Worked in a group of five to produce an extensive discussion board management system in Java, making use of GUI, sockets, multithreading, serialization, and other fundamentals
- Led the programming and implementation of all base functionality, bonus features, test case development, server-client relationship standards, and live deletion-detection UI updates

Chess Engine, HSE High School *Feb. 2021 – Jun. 2021*

- Researched C++ language and various algorithmic optimizations, including bitwise manipulation, alpha-beta pruning, move ordering, transposition tables, etc.
- Coded Windows and browser applications for it using wxWidgets and WASM, respectively
- Performed various tests of accuracy and performance, with an estimated ELO of 2000

HSE Safety, HSE Administration, HSE High School *Nov. 2020 – Dec. 2021*

- Collaborated with school administration to plan and create a mobile-friendly web application for staff to access school emergency procedure and contact data quickly and securely
- Received numerous positive reviews from teachers, with the application still in use

HSE Courses, Software Development, HSE High School *Sept. 2020 – Apr. 2021*

- Served as project leader for a team of three, training the team on ReactJS, setting deadlines, speaking with administration, and providing progress reports to our teacher
- Developed a MERN web application through a process of persona construction, potential user interviewing, storyboarding, incremental implementing, and testing
- Benefited 600+ students and counting with numerous course selection/planning features

SKILLS

Languages: C, C++, Java, Python, JavaScript, Typescript, HTML, CSS, Julia, SQL, UNIX shell
Development Tools: ReactJS, Angular, Express.js, Node.js, MongoDB, wxWidgets, WASM
Environments: MS Visual Studio Code, Jupyter Notebook, IntelliJ, MSSQL, MS Visual Studio, Vim
Hosting Technologies: Netlify, Firebase, Google App Engine, MongoDB Atlas