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 2025*
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

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

- Conducted preliminary research and testing on custom cube representations, Kociemba's two-step method, and branch pruning methods
- Produced a preliminary C++ algorithm capable of solving any two-by-two scramble in under three seconds and some three-by-three scrambles in under six seconds

Baldi's 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, optional features, test cases, server-client relationship standards, and UI deletion-detection

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.
- Performed various tests of accuracy and performance, with an estimated ELO of 2000
- Coded a Windows application interface for the engine in MS Visual Studio using wxWidgets
- Built a chess memory web game featuring the engine via WebAssembly (WASM)

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

- Collaborated with school administration to plan and create a web application for staff to access school emergency procedure and contact data quickly and securely
- Developed a customizable and mobile-friendly web application using the MERN stack, Ant Design, and react-pdf

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 and setting deadlines to ensure launch by January, the proceeding year's scheduling session
- Developed a MERN web application to enhance students course planning, reduce course guide maintenance, and improve course offering and diploma requirement awareness
- Benefited over 500 users during its first year of implementation

SKILLS

C/C++	Java	Python	JavaScript	TypeScript	HTML	CSS/SASS
SQL	Julia	Angular	ReactJS	wxWidgets	Node.js	Express.js
WASM	MongoDB	IntelliJ IDEA	Eclipse	PyCharm	Netlify	Firebase
Google App Engine		MS Visual Studio Code		MS Visual Studio		MS SQL