Arnav Mehra

(317) 690-9263 Home Address: 12141 Limestone Dr, Fishers, IN 46037 GitHub: github.com/ArnavMeh
mehra23@purdue.edu Campus Address: McCutcheon Hall, West Lafayette, IN 47906 LinkedIn: linkedin.com/in/arnav-mehra-ab8975193

EDUCATION

Purdue University, West Lafayette, IN Expected Graduation: *May 2025*
Bachelor of Science in Computer Science GPA: 4.00/4.00
HSE High School, Fishers, IN Graduation: *Jun. 2021*
Academic Honors Diploma GPA: 4.85/5.00

EXPERIENCE

Rubik's Cube Solver, Autonomous Robotics Club of Purdue, 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 five seconds and some three-by-three scrambles in under ten 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 user 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, UI deletion-detection stability, etc.

Memory Chess, PLTW Digital Electronics, HSE High School *Apr. 2021 – May. 2021*

- Coded a Windows application interface for the engine in MS Visual Studio using wxWidgets, a cross-platform desktop development tool
- Built a chess memory web game featuring the engine with ReactJS and WebAssembly

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

- Researched, over the span of three months, the C++ language and various algorithmic optimizations, including bitwise manipulation, alpha-beta pruning, move ordering, transposition tables, etc.
- Performed various testing methods to ensure accuracy and identify optimal parameter values, achieving an engine of around 2000 ELO

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

- Developed a highly customizable and mobile-friendly website using ReactJS
- Collaborated with school administration to plan and create a system for staff to quickly and securely access critical safety data via any device

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 that kept the app ready to 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
SQL	Julia	Angular	ReactJS	MongoDB	Node.js	Express.js
WASM	wxWidgets	Ant Design	Chakra-UI	LaTeX	Raspberry Pi	Arduino