# Arshpreet Singh Sandhu

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#### EDUCATION

#### **Purdue University**

B.S in Computer Science , Minor Mathematics

- GPA: 3.9/4.0 | Dean's List | Honors College
- Relevant Coursework: Data Structures and Algorithms, Object Oriented Java Programming, Intro to Artificial Intelligence, Generative AI, Discrete Mathematics, Computer Architecture, Linear Algebra

## EXPERIENCE

#### **Medical Informatics Engineering**

Software Engineer Intern

- Collaborated open source to the jQuery formbuilder project by developing 3 plugins and translating the interface into Hindi and Punjabi, improving accessibility for over 600 million native speakers.
- Pioneered development of custom controls to the FHIR questionnaire builder for measuring sickness intensity by leveraging JavaScript and Node.js to ensure smooth rendering and intuitive UI for 5000+ users.
- Spearheaded design of a plugin system using TypeScript and Node.js, allowing users to extend functionalities, reducing integration time by 60% for new users, boosting overall efficiency by 25%.
- Presented detailed documentation and authored supporting website to direct the team in creating plugins for the system, driving a 40% increase in community engagement and fostering collaborative teamwork.

## PROJECTS

#### I-Track | NextJS, MaterialUI, Javascript, Firebase, Git

- Developed a full-stack app to manage inventory items, adjusting cost and quantity, directing a fully responsive design using Next.js and Material UI, ensuring 100% cross-platform compatibility.
- Integrated snackbar notifications to provide instant feedback, improving experience, reducing errors by 25%.
- Leveraged Firebase for real-time database management, enabling seamless synchronization and data handling up to 10,000 inventory items providing robust backend support.

## Node CLI Plugin System | Typescript, NodeJS, NPM, CLI, Git

- Developed scalable text transformation plugin system allowing users to modify text with a single command.
- Designed a modular framework accommodating 10+ new plugins with less than 5% code changes.
- Authored a detailed plugin development tutorial and a dedicated website assisting in deploying custom plugins.

## LEADERSHIP AND ACTIVITIES

#### Mathematics Tutor | Purdue University

• Mentored 1:1 and group sessions, designing study resources for 80+ students to support academic goals.

#### Indian Students Association | Secretary

• Leader of a 400+ member community overseeing informed decisions, orchestrating religious fests, advocating inclusivity and steering social media, achieving a remarkable 60% growth in social media reach.

## **TECHNICAL SKILLS**

- Languages: Java, Javascript, Python, C++, HTML, CSS, Typescript
- Frameworks: ReactJS, NodeJS, Material UI, NextJS, Tailwind CSS, Express, Bootstrap
- Developer Tools: Git, Docker, VSCode, Eclipse, Pycharm, Vercel, NPM, Firebase, Pocketbase, Bash, VM

Jul 2024 - Aug 2024

Jun 2024 - Jul 2024

Mar 2024 - present

Aug 2023 - Aug 2024

Fort Wayne, Indiana

May 2024 - Aug 2024

Expected Graduation: May 2027

Indiana