

# Arshpreet Singh Sandhu

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## EDUCATION

### Purdue University

Bachelor of Science in Computer Science, Minor in Mathematics,

Fort Wayne, IN

Aug. 2023 – May 2027

- **GPA: 3.89/4.0**, Dean's List, Honors Pin Recipient (Top 5% academic achievers)
- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Computer Networks, Intro to C and Unix, Computer Architecture, Discrete Mathematics, Linear Algebra, Statistical Analysis
- Certifications: Career Essentials in Generative AI by LinkedIn, Intro to Artificial Intelligence by Microsoft

## EXPERIENCE

### Software Engineer Intern

Medical Informatics Engineering

May 2024 – Present

Fort Wayne, IN

- Designed an extensible TypeScript plugin system minimizing onboarding time by 60% with fast feature addition.
- Translated jQuery FormBuilder into Hindi & Punjabi, expanding access for 600M+ multilingual healthcare users.
- Engineered FHIR-based form controls with JavaScript & Node.js, streamlining usability for 5K+ users.

### Mathematics Tutor

Purdue University

Mar. 2024 – Sep 2024

Fort Wayne, IN

- Boosted student performance by 20%+ by delivering targeted 1-on-1 and group tutoring to over 50 students.
- Created customized learning resources and exam strategies, improving pass rates and conceptual clarity.
- Achieved an average student rating of 4.9/5, reflecting strong communication, mentoring, and teaching skills.

## PROJECTS

### AI Symptom Checker | React, Flask, Python, Scikit-learn, Postman, Git

Feb 2025 – May 2025

- Achieved 92% accuracy by training a machine learning model using a symptom dataset for disease prediction.
- Built scalable RESTful API endpoints with Flask, tested via Postman, boosting backend response time by 30%.
- Developed a React frontend integrated with real-time ML predictions, accelerating simulation speed by 40%.

### I-Track Inventory Application | Next.js, Firebase, Material UI, Git

Jul 2024 – Aug 2024

- Enabled real-time tracking of 10,000+ inventory items by integrating Firebase's Realtime DB with custom logic.
- Reduced user input errors by 25% via responsive Material UI design and instant Snackbar feedback notifications.
- Delivered a mobile-first, cross-platform app enhancing user satisfaction and accuracy in stock management.

### CLI Plugin System | Node.js, TypeScript, Command Line, NPM, Git

Jun 2024 – Jul 2024

- Crafted a CLI tool supporting 10+ dynamic plugins, expediting build process by 40% with minimal code changes.
- Authored comprehensive documentation and generated a demo site to drive adoption across developer teams.
- Enhanced maintainability and code safety using TypeScript's strict typing and modular architecture.

## LEADERSHIP AND CAMPUS INVOLVEMENT

### Vice President

Google Developer Groups - On Campus (GDG)

Sep 2024 – Present

Fort Wayne, IN

- Organized 5+ technical workshops on Android, Google Cloud, and ML APIs, increasing participation by 30%.
- Optimized event ops via Google Forms, Firebase Auth, and Meet, raising satisfaction by 40%.
- Scaled club to 500+ developers via outreach, speaker events, and university collaborations.

## TECHNICAL SKILLS

**Languages:** Java, JavaScript, Python, SQL, C++, TypeScript, HTML, CSS, Assembly

**Frameworks:** React, AngularJS, Node.js, Express.js, Next.js, Flask, Material UI, Tailwind CSS

**Developer Tools:** Git, Docker, Firebase, Postman, NPM, Vercel, Bash, Linux, Windows, Visual Studio Code, MongoDB

**Libraries:** Pandas, NumPy, Tensorflow, Matplotlib, Scikit-learn

**Methodologies:** Agile, Scrum