

# Harshit Kandpal

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## EDUCATION

### Michigan State University

East Lansing, MI

*B.S. in Computer Science (Concentration: Software Engineering) — Minor: Business*

*May 2026*

- **GPA: 3.99/4.00** | **Honors:** Tau Beta Pi Engineering Honor Society, Dean's List (All Semesters)

## EXPERIENCE

### Magna International

East Lansing, MI

*Software Engineer (Capstone Project)*

*Jan. 2026 – Present*

- Architecting a web-based CAD assistant with **FastAPI**, **Python**, and **Next.js** for **Magna International's** R&D team, projected to reduce manual geometry editing time by **35%**
- Engineered an **AI annotation system** leveraging **LLMs** to automate repetitive CAD modeling tasks, saving engineers **2.5 hours** per design iteration
- Integrated **FreeCAD's** backend API with a **React** frontend to enable engineers to visually inspect and manually refine **LLM-generated 3D models** in real-time, bridging the gap between AI generation and production-ready CAD output

### PromoterMotor

Remote

*Software Engineering Intern*

*Sep. 2025 – Feb. 2026*

- Launched an automated video content pipeline using **Node.js** and **Hugging Face Transformers**, automating 10+ hours of weekly video production tasks
- Developed custom web-scraping and workflow tools via **Google Apps Script**, resulting in a **30% increase** in team productivity and 2x increase in lead data acquisition
- Automated generation of free-to-use geospatial maps using **Python (Pandas, GeoPandas)**, reducing manual mapping effort and enabling scalable data visualization

## TECHNICAL PROJECTS

### Quote Battle | *React, Node.js, Express, Tailwind CSS, PostgreSQL, CI/CD*

Aug. 2025

- Developed a full-stack voting platform using a **RESTful API architecture**, managing dynamic user interactions and global leaderboard state
- Architected a relational schema in **PostgreSQL** via **Supabase** to ensure data integrity and optimized query performance for high-frequency voting actions
- Implemented an automated **CI/CD pipeline** via Vercel and Render, reducing deployment time by **90%** and ensuring seamless version control

### 90s Chatroom | *Python, Flask, Socket.io, MySQL, Docker, GCP Cloud Run*

Jan. 2025

- Engineered a real-time messaging application using **Socket.io** and **Flask**, facilitating instantaneous communication via WebSockets
- Containerized the application using **Docker** and deployed to **GCP Cloud Run**, implementing a serverless architecture to handle scalable traffic
- Developed a persistent backend with **MySQL** and used **AJAX** for asynchronous state updates, reducing server-side overhead by **40%**

### Sparty's Boots | *C++, wxWidgets, XML, CMake, Agile*

Feb. 2024 – Apr. 2024

- Collaborated in an **Agile team** to engineer a physics-based puzzle game, managing **10+ feature branches** via Git and resolving cross-platform GUI rendering issues
- Developed a modular logic-gate simulation engine in **C++**, maintaining a consistent **60 FPS** while processing complex **XML-based** object states

## TECHNICAL SKILLS

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

**Frameworks:** FastAPI, React, Next.js, Node.js, Express, Flask, Tailwind CSS, Pandas, wxWidgets

**Tools & Cloud:** AWS, GCP, Docker, Linux/UNIX, Git, CI/CD (Vercel/Render), PostgreSQL, MySQL

**Certifications:** AWS Certified Cloud Practitioner