

# Ankur Desai

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## EDUCATION

<b>Michigan State University</b> <i>B.S. in Computer Science</i>	Expected, May 2028 <i>East Lansing, MI</i>
<ul style="list-style-type: none"><li>• GPA: 3.74 / 4.0</li><li>• Vice President of Claude Builders Club @ MSU</li><li>• Relevant Coursework: Linear Algebra, Discrete Mathematics, Object-Oriented Software Design, Computer Organization and Architecture, Data Structures &amp; Algorithms</li></ul>	

## EXPERIENCE

<b>Project Team Lead</b> <i>ThinkStack</i>	August 2025 - Present <i>East Lansing, MI</i>
<ul style="list-style-type: none"><li>• Architected a full-stack note-taking application using React and FastAPI, achieving sub-200ms API response times.</li><li>• Led a cross-functional team of 6 (4 engineers, 2 designers) through Agile sprints, developing CI/CD pipelines with GitHub Actions that cut deployment time by 62% and automated testing to reach 87% code coverage with Jest/Pytest.</li><li>• Implemented JWT authentication and role-based access control, designing a dual-database system: PostgreSQL for structured data and Neo4j for graph-based concept mapping.</li></ul>	
<b>Web Development Intern</b> <i>WFS Consulting Group</i>	May 2025 - August 2025 <i>Plymouth, MI</i>
<ul style="list-style-type: none"><li>• Designed and developed a responsive website using HTML5, CSS3, and JavaScript, ensuring consistent performance across Chrome, Firefox, Safari, and Edge.</li><li>• Reached 95+ Google Lighthouse scores boosting engagement by 250% through contact forms and Google Analytics.</li><li>• Deployed production website to Linux servers with Apache and SSL certificates, maintaining 99.9% uptime.</li></ul>	

## PROJECTS

<b>Autonomous Drone</b> <i>Python, TensorFlow, OpenCV, Nvidia Jetson</i>	September 2025 - Present <i>East Lansing, MI</i>
<ul style="list-style-type: none"><li>• Developed autonomous drone software on Nvidia Jetson using MAVLink, and Cube Orange+ Flight controller</li><li>• Fused YOLOv11 object detection with real-time data from GPS, IMU, and barometer sensors, achieving 89% accuracy in visual target recognition, dynamic obstacle avoidance, and autonomous waypoint navigation</li><li>• Built robust APIs between vision, planning, and control modules, collaborating with a 6-person multidisciplinary team via Git workflows to raise mission success from 65% to 87%.</li></ul>	
<b>Mira - AI Personal Assistant</b> <i>Full-Stack Development   Python, FastAPI, SQL, Electron, React</i>	May 2025 - September 2025 <i>GitHub Link</i>
<ul style="list-style-type: none"><li>• Architected distributed multi-device system with intelligent client selection algorithm using proximity scoring and ambient noise analysis, enabling seamless voice command routing across multiple endpoints.</li><li>• Integrated OpenAI Whisper and Google Gemini APIs for voice transcription and natural language understanding, processing 1,000+ daily interactions with 95% accuracy through robust error handling and retry logic.</li><li>• Deployed microservices architecture on AWS Lambda with API Gateway, implementing JWT authentication, Redis caching, and PostgreSQL query optimization achieving 99.5% uptime and sub-200ms response times.</li></ul>	

<b>WizViz - SpartaHack X</b> <i>Hackathon   Python, OpenCV, MediaPipe, PyGame</i>	February 2025 <i>Devpost Link</i>
<ul style="list-style-type: none"><li>• Built a real-time multiplayer AR game using OpenCV and PyGame, achieving 60 FPS on Windows and MacOS.</li><li>• Implemented gesture-based controls and custom physics engine with collision detection for 2-player wizard duels.</li><li>• Used MediaPipe Pose for skeletal tracking on 33 landmarks with sub-30ms latency; won Best Game among 100+ projects and 500+ participants at SpartaHack X.</li></ul>	

## TECHNICAL SKILLS

<b>Languages</b> .....	Python, Java, C/C++, JavaScript/TypeScript, HTML5, CSS3, SQL, Bash
<b>Frameworks</b> .....	React, Vite, Node.js, Express.js, Electron, FastAPI, SQLAlchemy, REST APIs, Tailwind CSS
<b>Databases</b> .....	PostgreSQL, Neo4j, AWS RDS, Redis
<b>Cloud &amp; DevOps</b> ..	Docker, Git, CI/CD, AWS (Lambda, EC2, ECS, API Gateway), Google Cloud, Microservices