Ankur Desai

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EDUCATION

Michigan State University   Expected, May 2028
B.S. in Computer Science   *East Lansing, MI*
- GPA: 3.74 / 4.0
- Vice President of Claude Builders Club @ MSU
- Relevant Coursework: Linear Algebra, Discrete Mathematics, Object-Oriented Software Design, Computer Organization and Architecture, Data Structures & Algorithms

EXPERIENCE

Project Team Lead   August 2025 - Present
ThinkStack   *East Lansing, MI*
- Architected full-stack application using React, Vite, Tailwind CSS, and Electron, implementing RESTful API with FastAPI, PostgreSQL, and Neo4j for relational and graph data storage
- Led cross-functional team of 6 through Agile/SCRUM methodology, implementing CI/CD pipelines with GitHub Actions and Docker, reducing deployment cycle from 8 months to 3 months (62% improvement)

Web Development Intern   May 2025 - August 2025
WFS Consulting Group   *Plymouth, MI*
- Designed and developed responsive website using HTML5, CSS3, and JavaScript, achieving 95+ Google Lighthouse scores and cross-browser compatibility across Chrome, Firefox, Safari, and Edge
- Increased customer engagement by 250% through integration of RESTful contact forms and interactive widgets

PROJECTS

Autonomous Systems Engineer   September 2025 - Present
SUAS Drone | Python, TensorFlow, OpenCV, Nvidia Jetson   *East Lansing, MI*
- Developed autonomous drone software using Python on Nvidia Jetson, implementing sensor fusion pipelines and Cube Orange+ flight controller integration for autonomous waypoint navigation with optimized obstacle avoidance
- Engineered data pipeline to process 5,000+ aerial images and trained a YOLOv11 model that achieved 89% detection accuracy at 30 FPS for autonomous payload delivery, maintaining 10-foot precision at 70+ feet altitude

Mira - AI Personal Assistant   May 2025 - September 2025
Full-Stack Development | Python, FastAPI, SQL, Electron, React   *GitHub Link*
- Built distributed multi-device coordination system with Voice Activity Detection (VAD) algorithm, implementing priority-based client selection using proximity scoring, device uptime metrics, and ambient noise analysis
- Developed real-time audio processing pipeline using OpenAI Whisper for speech-to-text and DBSCAN clustering for speaker diarization, processing 1,000+ daily voice interactions with 95% accuracy
- Deployed serverless backend on AWS Lambda with API Gateway, implementing RESTful API architecture and PostgreSQL database achieving 99.5% uptime and sub-200ms response times for real-time command processing

WizViz - SpartaHack X   February 2025
Hackathon Project | Python, OpenCV, MediaPipe, PyGame   *Devpost Link*
- Built real-time AR game using OpenCV and PyGame with gesture-based controls for 2-player wizard duels
- Won Best Game among 100+ projects and 500+ participants at SpartaHack X, completing development in 24 hours
- Implemented MediaPipe Pose for skeletal tracking of 33 body landmarks with sub-30ms latency

TECHNICAL SKILLS

Languages . . . . Python, Java, C/C++, JavaScript/TypeScript, HTML/CSS, SQL, Cypher, Bash
Frameworks & Libraries . . . . React, Vite, Node.js, Electron, FastAPI, Tailwind CSS, SQLAlchemy
Databases & Cloud . . . SQLAlchemy, Neo4j, PostgreSQL, AWS (Lambda, ECS), GCP (Gemini API, Cloud Run)
Development Tools . . . . Docker, Git, CI/CD Pipelines, Figma, Postman, GitHub Actions
Core Competencies . . . . RESTful APIs, Full Stack Development, Agile Methodologies, Cloud Deployment