

Ankur Desai

(248) 657 - 3805 | ardusa05@gmail.com | ardusa.github.io | linkedin.com/in/ardusa

EDUCATION

Michigan State University

B.S. in Computer Science

Expected, May 2028

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

ThinkStack

August 2025 - Present

East Lansing, MI

- Architected a full-stack note-taking application using React and FastAPI, achieving sub-200ms API response times.
- 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.
- Implemented JWT authentication and role-based access control, designing a dual-database system: PostgreSQL for structured data and Neo4j for graph-based concept mapping.

Web Development Intern

WFS Consulting Group

May 2025 - August 2025

Plymouth, MI

- Designed and developed a responsive website using HTML5, CSS3, and JavaScript, ensuring consistent performance across Chrome, Firefox, Safari, and Edge.
- Reached 95+ Google Lighthouse scores boosting engagement by 250% through contact forms and Google Analytics.
- Deployed production website to Linux servers with Apache and SSL certificates, maintaining 99.9% uptime.

PROJECTS

Autonomous Drone

Python, TensorFlow, OpenCV, Nvidia Jetson

September 2025 - Present

East Lansing, MI

- Developed autonomous drone software on Nvidia Jetson using MAVLink, and Cube Orange+ Flight controller
- 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
- 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%.

Mira - AI Personal Assistant

Full-Stack Development | Python, FastAPI, SQL, Electron, React

May 2025 - September 2025

GitHub Link

- 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.
- 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.
- 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.

WizViz - SpartaHack X

Hackathon | Python, OpenCV, MediaPipe, PyGame

February 2025

Devpost Link

- Built a real-time multiplayer AR game using OpenCV and PyGame, achieving 60 FPS on Windows and MacOS.
- Implemented gesture-based controls and custom physics engine with collision detection for 2-player wizard duels.
- 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.

TECHNICAL SKILLS

Languages Python, Java, C/C++, JavaScript/TypeScript, HTML5, CSS3, SQL, Bash

Frameworks React, Vite, Node.js, Express.js, Electron, FastAPI, SQLAlchemy, REST APIs, Tailwind CSS

Databases PostgreSQL, Neo4j, AWS RDS, Redis

Cloud & DevOps .. Docker, Git, CI/CD, AWS (Lambda, EC2, ECS, API Gateway), Google Cloud, Microservices