

Ansh Sharma

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Portfolio: <https://anshsharma100.github.io/-Anshportfolio.github.io/> **GitHub:** <https://github.com/AnshSharma100>

EDUCATION

University of Texas at Dallas

B.S. in Software Engineering

Richardson, TX

- **Expected Graduation:** May 2028
- **Relevant Coursework:** Programming Fundamentals, Intro to Engineering and CS, Computer Science 1, AP Stats.

SKILLS

- **Programing languages:** Python, Java, C++, JavaScript (React), Html, CSS, TypeScript.
- **Libraries & Tools:** PyTorch, TensorFlow, TorchVision, OpenCV, MediaPipe, CLIP, FER, Tailwind CSS, NumPy, Pandas, Supabase, Git, Visual Studio, VS Code, Unity, XR Toolkit, SambaNova AI, OpenRouter, Twilio.
- **Platforms & Technologies:** Linux, Windows, CUDA, REST APIs, Full-Stack Dev, Computer Vision, AI/ML, Real-Time Systems.

RESEARCH EXPERIENCE

Undergraduate Research Assistant – Exoplanet Group (REU)

April 2025 – Present

- Assisting with research on tidal dissipation in exoplanet systems, contributing to the development and optimization of high-precision photometry pipelines using **Linux-based environments and scripting tools** to detect and analyze planetary transit.
- Improving the **Browser User Interface (BUI)** to enhance accessibility and usability for individuals without a background in astrophysics, including the integration of intuitive tools and streamlined workflows.

Software Research Engineer – Mixed Reality Virtual-Physical Proving Ground for CAVS

May 2025 – Present

- Developing **middleware** to synchronize **DonkeyCar** telemetry with the DDS-based **CPM** Lab framework, enabling scalable, real-time simulation and coordination of autonomous vehicle behavior in both virtual and physical environments .

PROJECTS

Curio – Developer

February 2025

- Built an **AI-driven healthcare web app** using **React.js, TypeScript, and SambaNova AI**, featuring a **hallucination-free chatbot** for accurate medical responses, **Supabase** for secure storage, and a **Figma-designed UI** for a seamless experience.
- Developed a **voice AI call feature** with **SambaNova Voice API** and **Twilio**, enabling automated symptom assessment calls that keep users on track and provide detailed AI-generated summaries via email, improving accessibility by **50%**.

HackAI – BreakPoint – Back-End Developer

April 2025

- BreakPoint, an AI-powered iOS app guiding users through toxic relationship scenarios via interactive WhatsApp-style chats.
- Integrated **OpenRouter API** to power AI-driven character interactions, enabling **dynamic conversation outcomes** based on user decisions, and provided **real-time analysis** on manipulation tactics and emotional responses.
- Used React, Swift, Tailwind, and TypeScript to build a responsive interface with emotional tracking and journaling features.
- Awarded **"Most Creative Project"** for Unshackle AI at HackAI 2025.

LEADERSHIP & CLUBS

AIMD Projects – Project Lead/ Full-Stack Developer

August 2024 – January 2025

- **1st Place Winner** at University of Texas at Dallas AIMD, for developing an innovative AI-driven healthcare solution.
- Developed **OPTIC-net**, an AI-powered web platform for early diabetic retinopathy detection, training a **TensorFlow deep learning model** on 10GB+ of medical imaging data, improving accuracy by up to **20%** compared to manual diagnosis.
- Designed and deployed a **full-stack web application**, integrating a **Flask backend** with an **HTML frontend**. Built a **scalable data pipeline** for real-time image preprocessing and AI inference, ensuring fast performance and seamless user experience

AIM Projects – Full-Stack Developer

February 2025- May 2025

- ExpressifAI is a real-time **computer vision** web app using **React/TypeScript** and **FastAPI** for emotion and action recognition.
- Integrated CLIP, FER, and MediaPipe into PyTorch/OpenCV pipelines for simultaneous gesture, emotion, and action detection.
- Enabled **gesture-based controls**, live feedback, and semantic summaries using Google Gemini for improved interactivity.

Student Council – Executive

May 2023–May 2024

- **Led school-wide events** like pep rallies, homecoming activities, and festivals, boosting school spirit and engagement.
- Managed fundraising campaigns, raising over **\$3,000** for the school and collecting supplies for donation to support causes.
- Collaborated with a team of **20+** throughout the school year, learning effective team management and cooperation skills.

ADDITIONAL EXPERIENCES

Sports: Participated in CCL Dallas Cricket League and Rockhill Badminton and cricket team, developing teamwork and strategic skills.

Cultural Engagement: HARIT non-profit member since 2021, supporting events and fundraisers for a 500+ member community.

Volunteer Work: Coordinated logistics of food distribution initiatives by organizing volunteer schedules and resources; directly contributed to serving more than 100 meals within one day while fostering teamwork among volunteers.