TANUSH CHAUHAN

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EDUCATION

The University of Texas at Austin, Austin, TX May 2029

BS in Computer Science (Honors) & BS in Mathematics, Minor in Robotics, Dean's Scholars Program. GPA: 3.86 / 4.0

EXPERIENCE

University of Texas at Austin, Austin, Texas Feb 2026 - Present

Undergraduate Research Assistant, Autonomous Mobile Robotics Laboratory

- Built a ROS2 human tracking pipeline. Fused LiDAR and RGB streams via an Approximate Time Synchronizer, integrated SAM3 segmentation, and validated alignment with RViz point-cloud overlays.
- Engineered a networked perception stack from Blackfly GigE camera streams. Deployed Dockerized ROS2 nodes with NVIDIA DeepStream for multi-view 3D person tracking, visualized in RViz with 2D overlays and 3D geometry.

University of Texas at Dallas, Richardson, Texas June 2024 - March 2025

Research Assistant

- Collaborated with Prof. Vincent Ng to develop MemeQA, a 9,000+ question multiple-choice benchmark. Evaluates meme comprehension, highlighting gaps between multimodal models and human performance.

PUBLICATIONS

Nguyen, K. P. N., Li, T., Zhou, D. L., Xiong, G., …, **Chauhan, T.**, et al. (2025). MemeQA: Holistic Evaluation for Meme Understanding. In **Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL 2025)**.

PROJECTS

Crave | React Native, Next.js 16, AWS Bedrock, Supabase + pgvector, AWS Lambda, ElevenLabs | Github

- Built an AI dining concierge. Voice agent calls custom Supabase Edge Function tools to query the DB and reconcile group preferences via Titan embeddings + pgvector HNSW, plus receipt-OCR bill splitting and a B2B analytics chatbot. Won Best Use of Supabase and Most Startup Ready at Hook 'Em Hacks 2026 (UT Austin).

Shoo! | ESP32-CAM, C++, Python, Qwen2.5-VL/Ollama, Supabase (Realtime/RLS/Storage), React Native | Github

- Engineered an edge-AI wildlife detection product with ultrasonic + GPS-triggered ESP32-CAM captures stream to an on-prem Python server running Qwen2.5-VL locally for species ID, then sync to a community mobile app.

Kindred | Next.js 16/React Native/Supabase/NVIDIA AI| Github

- Built an AI-driven marketplace with a matching pipeline using Supabase vector search and Llama 3.1 (through NVIDIA NIM) to analyze user profiles and automate personalized trainer and nutritionist matching with clients.

Prism Strategy Platform | React 18, FastAPI, React Flow, NVIDIA Nemotron, Auth0, Jira | Github

- Architected an AI-driven multi-agent product strategy platform with FastAPI and parallel NVIDIA Nemotron LLM workflows. Integrated React Flow and Jira/Auth0 to convert AI outputs into authenticated epics and tickets.

GradeMate | Next.js/React.js/Tailwind/Flutter/Oracle Cloud | Github App Store

- Built a cross-platform application used by 900+ students to track grades, calculate GPA, and predict grades.

Leadership & Community Involvement

Texas Convergent Fall 2025 - Present

Build Team Tech Member - IoT Case (Spring 2026), Health Tech Case (Fall 2025)

- Build team contributor on Shoo! (Spring 2026, IoT Case) and Kindred (Fall 2025, Health Tech Case). Both projects were awarded Best Presentation by Texas Convergent.

ECLAIR Robotics Spring 2026 - Present

Project Eye Tracker (Spring 2026)

- Member of the software and hardware team for the Eye Tracker project. Developed and optimized eye-tracking algorithms for downstream tasks such as controlling a robotic arm. Awarded Best Overall Project (Spring 2026).

SKILLS

- **Languages**: Java, Python, C/C++, SQL, JavaScript, TypeScript, Swift
- **Frameworks**: React.js, Next.js, React Native, Flutter, SwiftUI, Tailwind CSS
- **Tools & Cloud**: Supabase (PostgreSQL), Oracle Cloud, Git, OpenAI APIs, NVIDIA NIMs