Pranav Maringanti

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Education

University of Michigan — Ann Arbor, MI

Bachelor of Science in Computer Science — *May 2029*

Transfer: University of Texas at Austin, Computer Science & Robotics Honors (2025–2026), GPA: 3.79/4.0

Relevant Coursework: Data Structures, Discrete Mathematics, Linear Algebra, Calculus III

Technical Skills

Languages: Java, Python, C/C++, Typescript, JavaScript, HTML/CSS, SQL, PostgreSQL
Frameworks: React, Next.js, Node.js, Express.js, TailwindCSS, Material-UI, FastAPI, ROS 2
Developer Tools: Git, Docker, Supabase, Vercel, VS Code,
Libraries: OpenCV, pandas, NumPy

Experience

GLP Winner — May 2026 – Aug. 2026

Software Engineer Intern — *Remote*

- Built an end-to-end customer support response-time pipeline for ∼80 GLP-1 providers while also developing an internal document vault with secure sharing, version history, and controlled access to company documents
- Shipped 29 production PRs across frontend, backend, data, and reliability work, owning features and fixes from scoping through implementation, QA, testing, and release

Texas Convergent - Refind — Jan. 2026 – Apr. 2026

Software Developer — *Austin, TX*

- Built the attendee form-to-reward workflow across multiple features, including public form publishing, Supabase-backed submissions, QR distribution, reward eligibility logic, progress states, and confirmation emails
- Shipped authenticated collaboration and data-layer improvements, building brand invitation/onboarding flows and reducing dashboard metric queries by 67% through consolidated PostgreSQL/Supabase retrieval

UT Austin Freshman Research Initiative — Sep. 2025 – May 2026

Undergraduate Student Researcher — *Austin, TX*

- Built a vision-based social navigation pipeline that estimates 3D position and body orientation to model conversational groups (O-circles), identify open entry gaps, and generate ROS 2 / Nav2 approach targets
- Built top-down visualizations of detected groups, orientations, and entry targets for social-navigation debugging

IEEE Robotics & Automation Society — Sep. 2025 – May 2026

SENTRY Developer — *Austin, TX*

- Developed a ROS 2 autonomous navigation system that converts vision detections into a weighted cost map, generates safe paths around friendly and opposing robots, and maintains positioning within bounded attack zones

FRC Team 226 - The Hammerheads — Jun. 2024 – Jul. 2025

Programming Team Lead — *Troy, MI*

- Led a 40 person programming team, owning autonomous routines, OpenCV vision, sensor fusion, PID tuning, code reviews, and robot software integration in Java/WPILib

Projects

Total22 | multiplayer 11v11 arcade soccer game — Sept. 2026

TypeScript, PixiJS, WebSockets, Cloudflare Workers, Durable Objects

- Built a 2.5D FIFA-style soccer game with 22 autonomous players, switchable human control, custom ball physics/collisions, tactical movement, and passing logic
- Built WebSocket multiplayer syncing inputs and match state through Cloudflare rooms, with original art/audio

Meridian | AI-assisted multi-agent strategy simulator — April 2026

Python, Next.js, React, TypeScript, FastAPI, Supabase

- Led development of a multi-agent simulation system that models stakeholder conversations, iteratively evaluates competing approaches, and ranks recommendations through a role-based LLM orchestration backend
- Built a scalable backend managing agent state, goals, and memory across concurrent simulations

ALVINN | neural navigation algorithm for the blind — March 2023 – Sept. 2025

Python, PyTorch, CUDA, OpenCV, Vision Transformers, Open3D

- Won 2nd Place (50+ teams, Michigan Innovation Fair) building ALVINN, a real-time assistive navigation system that separates navigation hazards from walkable ground
- Fused visual saliency, monocular depth, and motion cues to rank nearby hazards by relevance and proximity, mapping them into live 3D and radar-style spatial views