Wyatt Hansen

University of Texas at Austin

wyatt.zilker@gmail.com   Portfolio | GitHub | Linkedin

EDUCATION

Aug 2024 - Present	**University of Texas at Austin**	
	Mathematics	
	Expected graduation May 2027	
Aug 2023 - May 2024	**Colorado State University**	GPA 4.0
	Computer Science with a minor in Mathematics	

ABOUT ME

I am an undergraduate student with a wide range of technical experiences and a history of collaborating on development teams. I have a passion for robotics and an interest in integrating machine learning models into robotic platforms.

ACTIVITIES

Human-Aware Planning and Interaction Lab   Sept 2023 - May 2024

Undergraduate Research Assistant

- Paid position working under Professor Sarath Sreedharan to improve human-robot interactions
- Leading a project to develop a robot control system using natural gestures via a Meta Quest
- Developing the lab's website and documentation site using modern web frameworks

Little Shop of Physics   Sept 2023 - May 2024

Volunteer

- Facilitating interactive science experiments and demonstrations for 4th and 5th graders in collaboration with the Boys & Girls Club of America

CSU Game Developers Association   Sept 2023 - May 2024

Member

- Working on different teams and tight time schedules to develop video games for entry in game jam competitions

TECHNICAL EXPERIENCE

Front-end and Back-end Development
JavaScript, TypeScript, Next.js, React, Tailwind, MongoDB, Upstash, Stripe, AWS, Supabase, Mailchimp, Sanity, Node.js, Mailgun, UploadThing

Robotics
Robot Operating System (ROS), Ubuntu, Gazebo, RViz, MoveIt, Unity

Machine Learning and Large Language Models
Python, LangChain, OpenCV, TensorFlow, Vector DBs (Pinecone)

PERSONAL PROJECTS | Portfolio GitHub

Flycatcher | Full-stack waitlist page builder
Modern Full-stack development
- Built a web app that uses authentication, image uploads, payments, databases, automated emails, and rate-limited APIs
- Built with modern frameworks and services

TOS Chat | Privacy Document Chatbot
Modern Frontend Frameworks and APIs
- Integrated GPT-4 with various companies' terms of service agreements and privacy policies to let users 'chat' with the documents they agree to every day.
- Designed and built the UI with NextJS, TypeScript, and Tailwind

Mystic Arcade | Browser multiplayer game
Backend Networking and Modern Frontend Frameworks
- Built a functional waitlist page using NextJS, Typescript, Tailwind, and Mailchimp
- Using WebRTC to bring UDP real-time multiplayer networking to the browser
- Designing and developing an isometric multiplayer game in JavaScript

Self-driving food-delivery rover
Machine Learning and Robotics
- Built the autonomous driving system for a food-delivery rover at St. Stephen's
- Intaking data from a camera and onboard sensors to make routing decisions and react in real-time to obstacles such as humans, stop signs, and cars.
- Using TensorFlow Lite and OpenCV to run inferences on a Raspberry Pi

My personal website
Frontend Design and Modern Frontend Frameworks
- Used NextJS, TypeScript, and Tailwind to build a markdown blog/portfolio site for my projects

Playlist Assist | Digital DJ
APIs and Algorithms
- Collects audio feature data from the song a user is listening to on Spotify (timbre, pitch, beat position, etc.) and uses the data to create seamless transitions between songs in a playlist
- Acts remotely, allowing the user to listen from any device while the program is running