

Wyatt Hansen

Colorado State University, Fort Collins

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[Portfolio](#) | [GitHub](#) | [Linkedin](#)

EDUCATION

Aug 2023 - Present

Colorado State University

GPA 4.0

Computer Science with a minor in Mathematics

Expected graduation May 2027

ABOUT ME

I am an undergraduate student at CSU 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 systems.

ACTIVITIES

Human-Aware Planning and Interaction Lab

Sept 2023 - present

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 Microsoft HoloLens
- Building an internal tool to help with SLAM (Simultaneous Localization And Mapping) testing in simulations
- Developing the lab's website using modern web frameworks

Little Shop of Physics

Sept 2023 - present

Volunteer

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

Game Developers Association

Sept 2023 - present

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, AWS, Supabase, Mailchimp, Sanity, Node.js

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](#)

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

Game jam entries | Spacekeep and Verminium

Collaboration and Game Engines

- Built two video games for game jam competitions on different development teams
- Completed deliverables on tight time schedules to submit the games on a deadline