Rahul Medicharla

Student at The Ohio State University

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SKILLS

- Building dynamic applications utilizing React, Ruby, .NET, SQL, Docker, and cloud services such as GCP and Azure.
- Experience in testing machine learning, finetuning generative AI, and creating custom Neural Network models.
- Proficient in JavaScript, Python, Java, C#, and C.
- Experience in developing products while following Agile methodologies and software development life cycles.

EDUCATION

The Ohio State University, Columbus OH — Graduation: May 2025
Bachelors of Science | Computer Science Engineering — GPA: 3.7/4.0
Focus: Software Development / Artificial Intelligence

EXPERIENCE

Software Engineering Intern at WillowTree — May – August 2023

- Lead the creation of an end-to-end MVP for a 24/7 customer support chatbot by using the React framework, collaborating with a cross functional team of developers and designers, and by following Scrum methodologies.
- Implemented a fast semantic search and response feature to enhance the customer experience by cutting down the response times from the customer service team by at least 30% through the use of large language models, vector embeddings, and an Azure SQL database.
- Engineered and deployed a custom backend web API leveraging Azure Cloud Services, .NET framework, and C#.

Application Developer Intern at TOYMAKERS — June – August 2022

- Developed a mobile application to improve the user experience for campus event organization utilizing the React Native framework which resulted in 100 weekly active users in a test group.
- Implemented a live GPS tracking system to simplify the event planning process by displaying the locations of key friends, events, and establishments using Google Cloud Platform's Realtime Database, Firestore, Places API and the Redux JS Toolkit.

COLLEGIATE AFFILIATIONS

Co-Founder/Treasurer of OSU's Cooking Club — August 2022 – current
Treasurer of OSU's Collaborative Programming Club — November 2022 – May 2023
3D Perception Team Member of Buckeye Autodrive — January 2023 - current

- Trained and visualized a 3D Object Tracking ML model to track the relative locations of vehicles and pedestrians in a ROS system designed to conduct Stage IV autonomous driving.
- Created and integrated a custom 3D Dynamics module to get the speed, direction, and orientation of surrounding vehicles relative to our vehicle's velocity, location, and orientation to true north using a linear regression model.

PROJECTS

evolate — June 2023

- Engineered a custom data structure to seamlessly switch between different search algorithms and data structures such as linked lists, hash maps, and binary search trees to maximize efficiency based on a user's behavioral patterns.
- Created and trained a custom PyTorch Neural Network to automatically determine when to switch implementations based on behavioral patterns such as insertion and deletion frequencies, search predictions, and search randomness.

mood.ai — March 2023

- Developed and hosted a custom Docker contained python API on GCP that allows users to convert memories stored as videos to abstracted art through the use of audio and video machine learning models and generative AI.
- Implemented numerous inference models such as yolov8 object detection and speech recognition to parse data about that media and utilized large language and stable diffusion models to reconstruct the data as abstracted art.

Audio Studio – 5th place project out of 1,000 participants at annual Hackathon — October 2022

- Created a speech-to-code editor that inputs conversational voice commands and maps it to runnable python code.
- Designed a nested recursive CFG representation of code logic and used Google's Speech Recognition for voice transcription.