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 training and using machine learning and generative AI models and creating custom Neural Networks.
- Familiarity with the fundamental languages such as Python, JavaScript, 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:** 3.68/4.0
Focus: Software Development / Artificial Intelligence

EXPERIENCE

Software Engineering Intern at WillowTree Apps   May 2023 - current

- Directed the creation of an MVP for a React based customer support chatbot by following Scrum methodologies.
- Utilized large language models, vector embeddings, and an Azure SQL database to develop a custom search feature to provide fast semantic search and response.
- 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 Bubble, a React Native mobile application that makes localized event organization with friends simple.
- Utilized Google Cloud Platform's Realtime Database, Firestore, and Places API to create an interactive UI that shows the real time location of friends, events, and nearby locations onto a map.

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.
- 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.

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 Neural Network to automatically determine when to switch implementations based on behavioral patterns such as insertion and deletion frequencies, search predictability, 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 the video and utilized large language and stable diffusion models to reconstruct that 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.