

Yuanhang Zheng

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Education

Rose-Hulman Institute of Technology

Bachelor of Science in Computer Science | GPA: 3.66

Expected May 2023

Coursework: Computer Architecture, Object-Oriented Software Development, Data Structure, and Algorithms, Database Systems, Web Programming, Operating Systems, Computer Network, Software Design, IOS Development

Skills

Languages: Python, C, C#, Java, JavaScript, Swift, HTML, CSS, MISP Assembly

Framework/Libraries: React, React Native, Bootstrap, Redux, Node.js, Django

Databases: Relational model, Non-relational model, SQL, MongoDB, Firebase, Redis

Experiences

Software Development Intern

Amazon

June 2022 – August 2022

- Upgraded an internal tool to streamline on-call engineers' process of diagnosing the root cause of why offers to consume a particular content on prime video are not available to streaming customers.
- Reduced time to resolve tickets by 75% by revamping the tool to provide a visual trace of offer statuses inside important backend systems that distributed these offers.
- Analyzed the trace to provide common issues diagnosis to help on-call engineers avoid repetitive work.
- Created a flexible software design that enabled engineers to easily implement more common issue diagnoses and to include more backend components as part of the trace.

Software Intern

Rose-Hulman Ventures

October 2020 – May 2021

- Developed a React Native mobile application that allows motor engineers to configure and debug a motor controller by communicating with it via Bluetooth.
- Designed and implemented the application's Bluetooth communication infrastructure with the Bluetooth low-energy library to stabilize the reading and writing of messages and ensure real-time updates.
- Reduced communication latency by 70% and robustly verified read and write operations to prevent invalid data from being processed and displayed.

Projects

Surprise Discovery | Transact-SQL, Node.js, JavaScript, HTML, CSS

- Developed a full-stack web application for students to buy and sell secondhand items with each other.
- Designed the backend SQL database and wrote CRUD store procedures and functions for storing and retrieving data including user's purchase history, shipping address, and item listings.
- Used Node JS to create an API that connected the frontend web page to the database.

Exam Review System | Firebase, JavaScript, HTML, CSS,

- Created a web app where Rose-Hulman students can create and join exam review sessions.
- Enabled students to track their ongoing and completed courses to find review sessions conveniently.
- Utilized Firebase for backend database and hosting and incorporated an authentication system that granted access only to Rose-Hulman students and faculties.

FAQ Chatbot | Rasa, Haystack, React, MongoDB, FastAPI

- Created a Chatbot that processes uploaded question-answer pairs and provides answers to user queries.
- Utilized Rasa Chatbot building framework to support conversation with users and the Haystack library to load deep learning models and perform a semantic search to find answers.
- Developed a feedback loop that records user feedback and allows chatbot administrators to finetune the model using the feedback.