Andres Mateo Ruiz

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Technical Skills

Languages: C#, C++, Typescript/Javascript, Python, Rust, PHP, SQL, KQL, Haskell

Frameworks: ASP.NET, React, Next.js, TailwindCSS, Vue.js, Svelte.js

Cloud Platforms: AWS, Azure, serverless and event-driven architecture, database management (NoSQL, PostgreSQL)

Developer Tools: Git, Docker, Jupyter Notebooks, CI/CD pipelines

Experience

Microsoft Redmond, WA

Software Engineering Intern

May 2024 - August 2024

- Pioneered the first Copilot features in Sentinel by developing Retrieval Augmented Generation (RAG) pipelines.
- Led cross-functional collaboration with two international teams and Microsoft R&D to establish dev guidelines.
- Leveraged modern developments in automated fact-checking and natural language processing to create an automated testing system that reduced skill evaluation time by 97% and monitoring accuracy by 42%.

Software Engineering Intern

May 2023 - August 2023

- Led development and testing of the React migration of the Continuous Integration feature for Microsoft Sentinel.
- Prepared API for GA by refactoring controllers and creating an automated Service Principal rotation service.
- Wrote script to maintain repository dependencies as code, reducing developer on-boarding time by 80%.

Explore Intern (PM + SWE)

May 2022 - August 2022

- 12-week internship developing a serverless automation tool for Microsoft Sentinel.
- Led the development and design of back-end using Azure Durable Functions, Cosmos Db, and the Twilio API.
- Performed product research and competitive analysis to create customer personas, mock-ups, and product spec.

TAMUhack College Station, TX April 2022 - May 2024

Tech Director

- Developed tools that supported some of the largest student-run hackathons in the state of Texas.
- Developed four (4) event websites (HowdyHack 2022 TAMUhack 2024) and the AI censored Spotify Queue using Vue.js, SvelteKit, Next.js, and PostgreSQL.
- During the events, helped mentor participants and put out fires for the Django event management tools.

Projects

SPOT - AI Guide Dog | Rust, Python, C++

January 2024 – May 2024

- Led project team to create an open-source AI robot as an affordable mobility aid for the blind.
- Created python driving code and a Rust traversal library that ran an optimized A* algorithm on a Gaussian Grid.
- Able to traverse its environment with a reaction time twice as fast as humans and with a 99.7% success rate.

Conversational Rec for Spotify | Python, Next.js, Typescript, Postgresql

August 2023 – December 2023

- A RAG-powered implementation of a Conversational Recommendation engine inspired by Google Research.
- Leverages GPT, few shot prompting, word embeddings, NL language profiles, and the Spotify rec engine in order to manage the conversation, limit hallucination, and deliver modern, relevant, and personalized recommendations.

Restaurant Point of Sales (PoS) | C#, Vue.js, Azure Web App, Github Actions

March 2023 - May 2023

- Created API that handled all PoS responsibilities, supported RBAC with OAuth, and analyzed store trends.
- Created customer view using Vue.js and deployed on two Azure Web App environments using Github Actions.

Multithreaded TCP Server | C++, Docker

Bachelor of Science in Computer Engineering

September 2022

- Used C++ to create multithreaded TCP server and client to request and receive user ECG data.
- Dockerized server and implemented a spoofing attack intercept to the server's packets.

EDUCATION

Texas A&M University

College Station, TX

Aug. 2020 - December 2024

• **GPA**: 3.7/4.0

- Awards: National Hispanic Merit Scholar (HSF), Raymond Ideas Challenge Finalist
- Roles: Teaching Assistant for Discrete Mathematics, Presence Sensor Research Assistant
- Relevant Coursework: Rec Systems and Natural Language processing, Machine Learning, Cloud Computing