

# A. Mateo Ruiz

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## TECHNICAL SKILLS

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

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

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

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

## EXPERIENCE

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### 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 interfaces 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

*Tech Director*

April 2022 - May 2024

- Developed tools that supported some of the largest student-run hackathons in the state of Texas.
- Developed four 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

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**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 control 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

- Developed 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*

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

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**Texas A&M University**

College Station, TX

*Bachelor of Science in Computer Engineering, Cum Laude Honors*

- **GPA:** 3.67/4.0
- **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