ROBBY HORVATH

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EXPERIENCE

Software Engineer - IBM Cloud   **June 2023 – Present**

Raleigh-Durham, NC

- Led critical feature development for our Node.js service, ensuring end-to-end implementation and successful production deployment.
- Established comprehensive test coverage using Jest for our service, integrated into our CI pipeline for validation on every pull commit in a pull request.
- Improved maintainability and simplified debugging through significant codebase refactoring.
- Collaborated closely with end-users to troubleshoot and resolve challenges related to our services.
- Contributed to infrastructure with Kubernetes (Helm, Tekton), containers (Podman, Docker), Terraform, and observability tools.
- Enhanced an internal CLI tool for live debugging of production environments and cluster management, packaging it with pip for a simple installation process for others.

Software Engineer Intern - IBM Cloud   **May 2022 – Dec 2022**

Raleigh-Durham, NC (Remote)

- Delivered a new feature to production with proper tests within the initial 3 weeks, using Golang despite being new to the language.
- Improved observability by optimizing performance monitoring for our team's Node microservices and automated the deployment of observability setups across multiple cloud regions.

EDUCATION

B.S. Computer Science   **Aug 2020 – Apr 2023**

University of Pittsburgh - GPA: 3.86/4.00

PROJECTS

mjc (MiniJava Compiler)   *Code available upon request*

- Developed a compiler that supports a subset of Java (MiniJava) as the source language with MIPS assembly as the target language.
- Created using Java, JFlex (lexical analysis), and JavaCUP (parsing).

Deep Answers   *github.com/h0rv/deep-answers*

- Developed a (Large language model) LLM-based chatbot with retrieval augmented generation (RAG) to analyze podcast transcripts from a favorite podcast.
- Provides a platform for generating answers and responses to questions and prompts related to the podcast content, promoting the dissemination of ideas, advice, and information within the podcast's domain.
- Uses the Llama 2 model, ChromaDB vector database, and streamlit for the frontend.

TCP Implementation   *Code available upon request*

- Developed a subset of the Transmission Control Protocol (TCP) in C, featuring concurrent packet timeouts for packet loss recovery.

SKILLS

- **Languages:** JavaScript (Node.js), Go, Python, C, Java, Rust, Haskell, Shell (Bash, Fish)
- **Technologies:** GNU/Linux, Redis, Containers, Kubernetes, Git, NeoVim