

Gadafi M. Ali

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SUMMARY

- Worked with a variety of applications, software, tools, and enjoy my time with each one. Never considered anything for granted and ensured to fully understand the back-end of software from Nginx and Apache to the front of such as Node.js and JavaScript. [Here](#). Enjoy the Free AI API Interface.
- Eager and willing bypass bureaucracy and delve into innovations that challenge conventions and leave a lasting impact on society.

EDUCATION

- B.S in Computer Engineering & Computer Science

University of Memphis

2021

- Received Fellowship Award from the University of Memphis Graduate School and Columbia College of Engineering, which recognized the potential of using research in LLM's to make people's lives better, instead of private sector motivated R&D.

EXPERIENCE

- Senior Software Development Engineer

2022 - Now

The University of Memphis – US (Memphis, TN) [On-Site]

Skills: React · Next.js · API · TypeScript · SQL · Web-UIX · Leadership · Web Development · Gitlab Enterprise

- Integrated custom Large Language Model (LLM) interfaces into department websites by developing tailored server-side API code, enabling integration with each client's unique frontend user interface.
- Developed and maintained various backend API servers to facilitate seamless interactions with OpenAI and other AI providers for multiple clients..
- Provided remote consultation and support for enhancing ESXi and vCenter systems, with a focus on manipulation and augmentation of security orientated environments for better usage as *passively* secure virtualized Linux environments.
- Designed and deployed a made-to-order, mesh-based LLM network system, enabling students to have their own uniquely focused LLM specifically integrated into the University of Memphis student profile, which learns and remembers the individual student.
- Utilized LibSQL (SQLite++) and integrated a unique storage method for retaining chat history in Large Language Models (LLMs), extending capacity and capabilities for long-term Conversational Memory without Lang-Chain or extensions, and enabling further recall and awareness of complex human-to-human interactions due to enhanced memory retention, mimicking human *recollection* and/or to *reminiscence*, while facilitating self-correction during live and active conversations.

2022 - 2022

- Senior Software Engineer

Dell Technologies – US (Round Rock, TX) (Remote)

Skills: Python · Data Engineering · Software Engineering · Machine Learning · DevOps · SQL · Networking · Teamwork

- Corrected critical technical errors within our remote virtual training labs hosted on multiple mirrored ESXi/VMware servers.
- Resolved reverse proxy issues for EURO-division clients, leading to improved connection reliability and support for upgrading to TLSv1.3 through a custom OpenSSL compilation.
- Displayed to shareholders the underutilization of our product line by constructing a prototype small-form-factor virtualization kit, but designed for on-the-go DevOps, R&D, and remote Web Application development.
- Introduced the concept of Network Protocol Compartmentalization; demonstrating its viability through a third-party application the ease-of-use, passive network isolation, and potential to greatly enhance network performance in a localized area.
- Discovered a Zero-Day vulnerability in Windows 10/11 explorer.exe, exploiting it on behalf of EURO-division clients to improve scalability as reported by the client.
- Deployed a custom sandboxed OS with pre-imported repositories using Gitlab, enabling for far more creative software explorations and risk assessment among our junior and senior staff members. Network traffic restricted at the kernel-level for safety concerns

2019 - 2022

- Senior Software Engineer

The Boeing Company – US (San Diego, CA) [Hybrid]

Skills: Web-UIX · Team Development · Algorithm Design · Cloud Infrastructure · .NET · Virtualization · C/C++ · Teamwork

- Resolved a two year-long issue involving an architectural limitation of Hyper-V, but mistakenly flagged as a software issue.
- Documented, annotated, and provided numerous detailed reports on potential solutions to faulty/deprecated software code.
- Adapted quickly to new frameworks, meeting or exceeding project deadlines.
- Developed and integrated new UI features using C# and C/C++, ensuring compatibility with legacy systems.
- Presented a blueprint to management for transitioning to a hybrid-cloud development environment by Q4.
- Used Microsoft Visual Studio 2019+ to debug interactive .NET applications, converting pilot data for the JMPS.
- Updated outdated code for 32-bit applications, ensuring compatibility with x86/64-bit hypervisors.
- Modernized software elements for the Joint Mission Planning System (JMPS) and Boeing F/A-18 for Naval fleets.
- Collaborated in an agile environment, contributing to code development supporting the Tomahawk Weapons System.

2019 - 2022

- Process Engineer

Flex Ltd – US (Memphis, TN) [On-Site]

Skills: C/C++ · Software Engineering · Operating Systems · Machinery · Leadership

- Engineered a Gitlab backend system that autonomously pulled images locally and on-demand, eliminating the need for repetitive external certification verification.
- Developed bash scripts to enhance detection of suspicious network activity. Upon detection, automated propagation of alerts via iptables to local servers for instant blocking of similar traffic.
- Enhanced Java-based Jenkins files to ensure seamless execution of push/pull requests and compatibility with future updates.
- Optimized assembly line code to improve workflow proficiency for disabled staff by adjusting the code responsible for controlling the speed of each individual assembly belt. This greatly reduced stress and strain on the disabled staff members.