ARQAM ZIA

Software Development Engineer

Status: Junior Undergraduate Comp Sci
Skills: Design Patterns, APIs, Automated Testing, Version Control, Kanban
Tools: Docker, Git, Playwright, Linux
Languages: C, C++, Python, Rust, Go, SQL

FAST NUCES
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Experience

APIMATIC - Solutions Engineering Intern   Jun - Aug 2024

- Designed and developed proof of concepts for prospective high-profile clients such as Threads by Meta and Franklin Templeton, demonstrating APIMatic's advanced capabilities in documentation generation and SDK code generation, which aimed to enhance potential client engagement.
- Engineered and executed Playwright and unit tests for PayPal's API endpoints, improving the accuracy of testing through sophisticated browser interaction techniques, resulting in more reliable API performance.
- Conducted regression testing and performance benchmarking of LLM-driven chatbot features, offering in-depth insights that informed enhancements for clients such as Verizon, PayPal, and Chargify/Maxio.
- Developed a linter and translator for OpenAPI specifications, specifically the Arazzo spec, streamlining the conversion of workflows into custom JavaScript functions, which increased development efficiency.
- Revamped and revitalized a discarded .NET Framework catalog project by cleaning up, refactoring, and republishing the new version, which resulted in a more stable deployment and led to increased conversions and interactions.
- Acquired comprehensive expertise in software design principles, version control, issue tracking, and development practices, which enhanced overall technical proficiency.

Projects

Implementation of RingDHT data structure from IPFS - Go   Summer 2024

- Developed a robust data structures project in Go simulating an InterPlanetary File System's Ring Distributed Hash Table (DHT) based on the Chord protocol for efficient distributed file storage and retrieval.
- Successfully created a scalable and fault-tolerant system capable of handling data insertion, search, and deletion with dynamic node addition and removal, demonstrating advanced understanding of distributed systems and data structure optimization.

Implementation of a basic HTTP server - Rust   Summer 2024

- Built an asynchronous HTTP server in Rust, capable of handling multiple requests concurrently while maintaining high performance and low resource usage.
- Employed Rust's ownership model and concurrency features to ensure memory safety and efficient execution, showcasing skills in systems programming.

MultiThreaded rendition of classic Pacman - C++   Spring 2024

- Created a multithreaded version of the classic Pacman game using C++, with advanced synchronization techniques to manage concurrent gameplay and AI behaviors.
- Implemented retro graphics and game mechanics, demonstrating proficiency in C++ programming, real-time processing, and multi-threading.

Education

FAST National University of Computer and Emerging Sciences - Islamabad   Aug 2022 - Jun 2026

Bachelor of Science in Computer Science   CGPA: 3.0

Pakistan International School Jeddah - English Section - Jeddah   Sep 2010 - May 2022

General Certificate of Education - Advanced levels   Grade: 2A* 1A 1B
International General Certificate of Secondary Education - Ordinary levels   Grade: 5A* 3A