

ARQAM ZIA

Software Development Engineer

Status: Junior Undergraduate Comp Sci

Skills: Design Patterns, APIs, Automated Testing, Version Control

Tools: Docker, Git, Playwright, Linux

Languages: C++, C#, Java, Go, Python, Rust, 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

HawkTU - Full Stack Web App - TypeScript, React, Java Spring Boot, PostgreSQL

Winter 2024

- Developed a fully modular and microservices-based e-commerce platform, featuring a TypeScript React frontend, Java Spring Boot backend, and PostgreSQL database, with robust JWT authentication and secure password hashing.
- Designed and implemented a scalable, independent architecture allowing for easy modifications to individual services without affecting the overall system. Integrated cloud deployment, secure API communication, and optimized coding practices, demonstrating expertise in full-stack development, security, and modern software engineering principles.

Implementation of RingDHT data structure from IPFS - Go

Fall 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.

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