

Md Fakhru Islam

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WORK EXPERIENCE

Software Engineer

Mar 2023 – Present

Therap Services LLC (HQ: Connecticut, USA)

Dhaka, Bangladesh

- Engineered a fault-tolerant, asynchronous file exchange system (Spring, SFTP) to orchestrate secure data transmission for **320,000+** monthly invoices, reducing manual workload by **110+** hours.
- Spearheaded the architectural migration of a legacy batch monolith into a distributed system, guiding a **4-engineer** squad to drive a **3x** throughput increase while maintaining **99.9%** uptime.
- Developed a full-stack **Self-Service Test Automation Portal** (Spring Boot, React) for independent test execution, eliminating release bottlenecks and **automating ~21%** of manual test cases.
- Secured the software supply chain for a **150+ developer** platform, achieving **100% audit compliance** by orchestrating critical library upgrades and enforcing dependency governance.

Technology Stack: Java (Spring Boot, MVC), React, Playwright, Nginx, Docker, Oracle, Git.

TECHNICAL SKILLS

Programming Languages: Java, C++, Python, JavaScript

Databases: Oracle, PostgreSQL, MySQL, Redis, ChromaDB

Development: Spring Boot, Spring MVC, FastAPI, React, Redux Toolkit, jQuery, RESTful APIs, JWT, WebSockets

Applied AI: RAG Systems (ChromaDB, SBERT), LLM Integration (Ollama), Unsupervised Anomaly Detection

DevOps & Cloud: Docker, Amazon Web Services (AWS), Nginx, Kafka

Testing & Automation: Playwright, JUnit, Selenium, Pytest

Version Control & CI/CD: Git, GitHub Actions

ACHIEVEMENTS

- Codeforces: Max Rating **1955 (Candidate Master)** - **top 2.56%** — Handle: fakhruislam
- Codechef: Max Rating **2282 (6*)** - **top 0.2%** — Username: fakhruislam
- Ranked **21st** in 2021 & 2022 ICPC Asia Dhaka Regional Online Preliminary Contest (ICPCID)

PROJECT EXPERIENCE

Pulse AI | *FastAPI, Kafka, Postgres, Docker, Redis, ChromaDB (RAG), Ollama (local LLM), SBERT embeddings*

Built a real-time log analytics pipeline (Kafka, FastAPI) with unsupervised anomaly detection and behavior tracking; RAG-based NL queries via ChromaDB + local LLM (Ollama), Docker, Redis, PostgreSQL.

Expensalyzer | *Spring Boot, REST API, Docker, JUnit, Git, Amazon RDS*

RESTful financial backend with JWT auth and Amazon RDS; Dockerized, tested with JUnit.

EDUCATION

Shahjalal University of Science and Technology

Sylhet, Bangladesh

Bachelor of Science in Mathematics

Feb 2018 – Mar 2023

- Relevant Courses: C Language (4.00), Data Structures (4.00), Algorithm Design (3.75)
- Extracurricular: **Vice President** and **Programming Mentor** at Euclid Programming Club