

MUZAHID OLY

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SKILLS

Languages: Java, TypeScript, Python, JavaScript, SQL, C++, HTML/CSS

Frameworks & Tools: Spring Boot, React, Node.js, Next.js, JUnit, Cypress, Git, RESTful APIs

Cloud & Infrastructure: AWS (Lambda, S3, DynamoDB, Aurora, API Gateway, CDK), Docker, CI/CD

Specialized: System Design, Distributed Systems, Generative AI (LLMs, Prompt Engineering)

WORK EXPERIENCE

AMAZON

Detroit, MI

Software Engineer

May 2024 - Present

- Built and scaled a distributed system (Java, React, AWS) to collect, validate, and report **50k+ metrics** with sub-second latency, guaranteeing end-to-end data correctness for company-wide regulatory reporting.
- Leveraged Generative AI (Claude 3.5, AWS Bedrock) to architect, build, and productionize an automated metric creation and reporting tool, eliminating **24k+ hours** of manual data prep and reclaiming **~\$1.4M** in annual productivity.
- Implemented performance-conscious RESTful APIs and client applications, applying core data structures and algorithms to optimize batching, pagination, and query paths; validated through comprehensive automated testing (JUnit, Cypress) enforced via CI/CD with **99% coverage**.
- Engineered high-concurrency data workflows using DynamoDB atomic counters, eliminating contention-related failures and enabling safe parallel ingestion across thousands of concurrent writes under **10x load**.
- Scaled CI/CD and integration testing infrastructure by migrating execution from AWS Lambda to ECS Fargate, eliminating timeout failures and enabling deterministic execution of long-running (15+ minute) test suites.
- Owned production reliability and system health, participating in on-call rotations, debugging distributed failures, leading **root cause analyses (RCA)**, and authoring operational playbooks to reduce incident recurrence.
- Served as a technical owner for critical services by mentoring engineers, conducting **400+ code reviews**, and authoring/reviewing **over 30 system design documents** (HLDs/LLDs) to ensure long-term scalability, maintainability, and engineering standards.

AMAZON

Detroit, MI

Software Engineer Intern

May 2023 - August 2023

- Led a large-scale frontend architecture migration for a high-traffic, revenue-critical web platform (**100K+ annual users**), transitioning from **Angular** to **React**, improving performance, modularity, and long-term scalability.
- Designed and enforced automated testing strategies using Jest and Cypress, achieving **95%+ line and branch coverage** and increasing deployment reliability.
- Refactored and optimized backend services in Spring (Java), improving **API latency by ~10%** and ensuring backward compatibility with evolving client requirements.
- Collaborated with a cross-functional team of developers, designers, and stakeholders to gather requirements, analyze user feedback, and iterate on design solutions, resulting in a **20% improvement in user satisfaction**.

CODE313

Detroit, MI

S.T.E.M. Engineer Intern

May 2022 - August 2022

- Developed and delivered programming courses to **over 5 youth education centers** across Metro Detroit, teaching valuable coding skills to aspiring learners.
- Contributed to developing computer science curricula using Blockly and Scratch, teaching game programming, logic, robotics, and critical thinking to **300+ students**.

EDUCATION

WAYNE STATE UNIVERSITY

Detroit, MI

Bachelor of Engineering

September 2020 - May 2024

Major in **Computer Science**

GPA: **3.8/4.0**; Dean's List 2020-2024