IRSHAD A. SCHOWRAI

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EDUCATION

Clark University - USA | CGPA: 3.61/4.0   **Jan 2022 – Dec 2023**

Master of Science in Computer Science

Coursework: Design and Analysis of Algorithms, Server-Side Web Programming, Software Engineering, Software Quality Assurance and Testing, Software Development and Operations (DevOps), Applied Data Analytics, and Fundamentals Data Engineering.

University of Madras – INDIA   **Jun 2005 – Mar 2008**

Bachelor of Computer Application

TECHNICAL SKILLS

Languages/ Framework: Java, Python, JSON, HTML5, CSS3, Bash/Shell, Spring Boot, Hibernate, JPA, ReactJS.

Webservices: RESTful API's, Microservice Architecture, Apache Kafka, Eureka Service Discovery, OpenFeign, Resilience4j, WebClient.

Tools: Junit, Mockito, Git, GitHub, Maven, Jenkins, Docker, Postman API, Bootstrap, Prometheus, Grafana stack, Agile, Jira.

Cloud Computing: AWS (EC2, S3, Lambda, DynamoDB, SQS, SNS, CloudWatch), Azure (Data Factory, ADLS, Function, SQLDB).

Database (SQL/NoSQL/Caching): MySQL, MSSQL, PostgreSQL, MongoDB, Redis.

PROFESSIONAL EXPERIENCE

ERNST & YOUNG LLP | Senior Consultant | Client (Microsoft) | Bangalore, India   **May 2021 – Dec 2021**

- Designed and developed a full stack web application to capture shipping records processed with Java Data and Time API, leveraging **React/Redux** for front end and Spring Boot to develop **RESTful APIs to fetch data from MySQL and MongoDB**.
- Developed part of a high-volume e-commerce application using Java, which increased software efficiency by 25%.
- Developed a MySQL script to add global UUIDs to existing files and Java code for providing global UUIDs to newly added files in S3.
- Optimized backend systems in Spring Boot to fetch and **process millions of financial records in under 3 minutes**, utilizing efficient query design, batch processing, and parallel streaming to enhance performance and scalability.
- Developed and optimized Kafka-based systems in Spring Boot, ensuring reliable message ordering, schema evolution, high throughput, exactly-once delivery, and fault tolerance.
- Configured Prometheus and Grafana, to monitor and alert messaging systems to track performance metrics and identify issues.

JK TECHNOSOFT LTD | Senior Developer | Client (Tata Consultancy Service) | Noida, India   **Sep 2020 – May 2021**

- Developed more than 50 APIs of material management system to map product with Java interface for search, insert, modify, and delete, thus making product faster, 90% more user friendly and ideal for integration to frontend.
- Developed a **dynamic tabular data display** in the frontend using React with features like **pagination and filtering** based on dropdown selections. Integrated with a Spring Boot backend, **utilizing REST APIs to efficiently fetch** and display records based on user requests.
- Developed Java Bean components to implement real-time **statistical calculations, business logic, and time series analysis** systems for **financial data**, optimizing resource usage and significantly reducing cost.
- Improved an existing Java application for business finance management by implementing a new caching strategy using Redis.
- Created a **Spring Batch workflow** for automated name classification and labeling, integrating models for high-confidence auto-labeling, and utilizing efficient **data structures and parallel processing** techniques, which cut manual efforts by **80%**.
- Implementing database indexing, query optimization, and caching strategies to accelerate data retrieval and enhance application performance in **Azure MSSQL**.
- Performed root cause analysis of defects in production environment and devised strategic plans with team to fix them which improved user and client experience by 10%.

PROJECTS

Walmart USA Advanced Software Engineering Virtual Experience Program on Forage   **Oct 2023**

- Created a **heap data structure** using Java programming **for Walmart's shipping department**, showcasing strong problem-solving and algorithmic skills.
- Designed a UML class diagram for a data processor, considering different operating modes and database connections.
- Created an **entity relationship diagram to a new database** accounting for all requirements provided by Walmart's pet department.

Lyft Back-End Engineering Job Simulation   **Oct 2023**

- Completed the Back-End Engineering job simulation, taking over development of an unfinished project for the Lyft Rentals team.
- Developed a UML diagram for **reorganizing the architecture** and systematically refactored a problematic inherited codebase to enhance maintainability and **fix bugs**. Applied **object-oriented principles** and implemented **unit tests** to ensure code stability.

Fileserver Challenge: GitHub Repository Link   **Apr 2023**

- Developed a high-performance middleware using **Flask and Redis** to optimize a backend file server, achieving a maximum sustained throughput of **500 RESTful API** calls per second and handling **135,000 API calls in 7 minutes** during load testing.
- Utilized Docker and Docker Compose to containerize the middleware, file server, and Redis components, ensuring efficient resource management within a constrained environment of **2 CPU cores and 4GB memory**.

CERTIFICATES

- **Confluent Fundamentals Accreditation**: Proficient in Apache Kafka: Real-Time Streaming.   Certificate Link   Jul 2024
- **Oracle Java Explorer**: Scored 100% in Oracle Java Explorer assessment.   Certificate Link   Jan 2024
- **Forage Walmart Global Tech**: Advanced Software Engineering Job Simulation.   Certificate Link   Oct 2023
- **Forage LYFT**: Back-End Engineering Job Simulation.   Certificate Link   Oct 2023