

Muhammad Usman

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Experienced software engineer with 8+ years of expertise in designing and delivering scalable, high-performing applications for industries like financial services, Big Data, e-commerce, healthcare and retail services. Proficient in using technologies like Java, Spring Boot, ReactJS, SQL, Docker, Kafka, and cloud services. Driven by solving complex challenges and delivering customer-centric solutions.

Work Experience

Senior Software Engineer

Alex Solutions, Melbourne

Feb 2023 - Oct 2024

Metadata Management

Remote

- I Contributed to the core service of a Metadata Management Framework by creating and enhancing data scanners and connectors. Delivered solutions under an agile methodology to meet rapid customer demands, supporting customer retention and minimizing churn.
- Enhanced Azure Synapse and Azure Data Factory connectors by implementing serverless SQL query parsing for data lineage, providing clients with detailed insights into their data landscape and lineage built on custom SQL pipelines.
- Designed and built cloud-agnostic Databricks scanners, ensuring compatibility across Azure and AWS while adhering to security protocols.
- Enhanced Snowflake Connector capabilities by integrating streams, tagging, and relationship cataloging, enabling customers to utilize a single scanner for lineage tracking, eliminating reliance on third-party tools.
- Led the integration of new scanners (dbt, Databricks, Azure Synapse) to ensure seamless cataloging and external lineage across systems.
- Optimized H2 queries in ETL pipelines through proper indexing and improved Groovy/Python scripting, reducing memory usage and improving scanner execution time by 10-20%.
- Addressed security vulnerabilities across 25+ scanners, focusing on SQL injection, achieving 99% protection and strengthening system security.
- Migrated Jenkins pipelines to GitLab CI/CD, ensuring 24/7 availability, reducing development efforts, and delivering cost savings.

Software Engineer Confiz Oct 2019 – Feb 2023

Big Data, Cloud

Lahore, Pakistan

- Designed and implemented core backend features for an ETL data pipeline project, including fault-tolerant APIs, Notebook APIs, and Airflow integration to provide deep insights into orchestration platforms. Resolved critical production issues within strict SLAs.
- Automated testing for complex ETL use cases, reducing manual testing efforts by a significant margin.
- Ensured code quality by integrating SonarQube into CI/CD pipelines, effectively eliminating P1 issues and mitigating security vulnerabilities across multiple code repositories.
- Led an 8-member team, driving initiatives to improve team performance, visibility, and engagement, resulting in reduced churn rates.
- Developed a streamlined onboarding and offboarding process, minimizing knowledge gaps and reducing the training overhead on senior resources by 90%.
- Successfully onboarded and trained over five team members, enabling them to become operational quickly and
 contribute effectively. Actively participated in team evaluations, providing critical feedback to management that
 facilitated promotions and professional development for team members.
- Designed, developed, and deployed a Kafka-based error processing system from scratch, enabling the team to deliver an MVP within 8 weeks, securing a high-value project.
- Contributed to cloud migration by transitioning data, services, and CI/CD pipelines from an on-premise environment to Azure Cloud.
- Implemented Test-Driven Development (TDD) practices, achieving 80% code coverage, including edge case scenarios.
- Solely deployed the error processing system for two new clients, ensuring seamless implementation and integration while meeting project timelines.

FinTech Team

Lahore, Pakistan

- Specialized in the Payment Card Industry (PCI) with expertise in designing and developing scalable, robust microservices for payment processing, ensuring strict PCI compliance.
- Developed an embedded finance API for seamless integration with third-party financial services, including card creation, payments, and fee management, significantly reducing client development efforts and enabling a stronger focus on core domains.
- Built and deployed six+ microservices, such as payment processing, fee calculation, card creation, and customer
 onboarding. Ensured PCI compliance while enabling rapid deployment, testing, and continuous improvement based on
 customer feedback.
- Implemented AWS Queue Service for asynchronous communication between microservices, enhancing system robustness and scalability to handle increased demand.
- Redesigned the payment card registration portal, streamlining KYC processes for smooth user onboarding, card activation, and delivery. Improved customer satisfaction and increased platform traffic.
- Developed a wrapper payments processor REST-based API over an existing SOAP module, reducing development efforts by 50% and enabling seamless integration.

Software Developer (Java)

Trangolabs

Jan 2017 - Feb 2019

Solution consulting (CPQ)

Lahore, Pakistan

- Full-Stack Java Developer for a Sweden-based client, customizing a CPQ product to reduce quotation processing time from days to hours.
- Led a team of 3 developers, interviewed 20+ candidates, and successfully hired/trained 5+ team members on a complex CPQ product.
- Collaborated with a leading European CPQ provider to customize their platform for a major pump manufacturing client.
- Initiated knowledge-sharing sessions to improve team technical skills and product knowledge, reducing onboarding time.
- Developed an in-memory Pub-Sub model for quotation processing, enabling simultaneous creation and management of multiple quotations.
- Designed and implemented quotation grouping/subgrouping using a built-in framework, eliminating third-party tools.
 Utilized a JSON-based persistent layer (Java 8 backend) and created a multilevel expanding front-end interface, improving client efficiency in managing similar quotations.

Education and Certifications

• **BS Computer Science,** University of Punjab, Pakistan.

2012-2016

Technologies and Languages

- Languages & Databases: Java, JavaScript, Python 3, Kotlin, Groovy, SQL (MySQL, Oracle)
- Big Data & Streaming: Snowflake, Databricks, Azure Synapse, Azure Data Factory, Apache Kafka, RabbitMQ
- Frameworks & Libraries: Spring (Boot, Cloud), Node.js, React.js, JQuery, Hibernate, JMS, JUnit, Mockito, Android
- Cloud & DevOps: Azure, AWS, Docker, Jenkins, SonarQube, CI/CD
- Architecture & Design: Microservices, Monolithic, Event Driven Architecture

Note: For more project details, please visit my LinkedIn Profile