Mo Sorkhpar | Senior Software Engineer

Summary

Software Engineer with 10+ years of experience specializing in Java, Spring Framework, and SQL/NoSQL. Focused on building scalable microservices, implementing DevOps practices, and leveraging cloud technologies to boost system performance, scalability, and efficiency. Demonstrated capability in contributing to and leading teams on 15+ projects.

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Work Experience

Senior Java Developer

Capital One - Remote (Contract through Ascendion)   09/2024 - Present

• Integrated Discover Network into the existing card authorization system, ensuring ISO-8583 message processing aligned with network requirements and maintaining system integrity.
• Identified a critical defect in production code through proactive review, preventing significant financial losses.
• Pioneered end-to-end transaction simulation environment using JMeter and WireMock to reproduce complex production edge-case scenarios, becoming the first team member to present defects through comprehensive local testing.
• Led the migration of runtime secret fetching using AWS Java V2 Secrets Manager SDK, enhancing security and efficiency.
• Conducted knowledge transfer sessions for the new joiners to expedite their ability to take ownership of the tasks.
• Automated repetitive web-based tasks using Selenium Python, reducing manual workload and increasing efficiency.
• Extended developer-friendly shell script functions to facilitate 60+ team members' daily routines.
• Leveraged Java 17, Spring, jPOS (ISO-8583), PostgreSQL, and AWS to build robust applications, improving system performance and reliability. Employed BDD with Cucumber, JUnit, and Mockito for effective testing, and used Docker, Maven, Gradle, and Jenkins for efficient CI/CD processes.

Senior Software Engineer

ISU - Terre Haute, IN, USA   06/2024 - 09/2024

• Led the development of a large-scale dataset generator, extracting and transforming 150GB of raw data using advanced graph sampling algorithms; created a knowledge graph with 58M nodes and 330M edges.
• Leveraged AWS services (EC2, S3, RDS, ECR, SQS) and Docker containers to deploy data-processing modules.
• Implemented solutions using Spring, Linux, Python, PyTorch, Google-OR tools, and NetworkX to optimize data processing workflows, resulting in improved processing speed and accuracy.

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Intellias - Remote   10/2021 - 06/2022

• Developed a reactive microservices-based sales platform for a telecom's ePOS system, serving 3,000 retail branches.
• Orchestrated a team of 8 in a scrum-based environment, collaborating with more than 70 developers.
• Investigated, debugged, and resolved critical reported bugs as a member of the defect team.
• Achieved $10,000 in annual savings by replacing an expensive licensing model with an open-source reporting solution.
• Utilized Java, Kotlin, Spring Cloud, Project Reactor, PACT, WireMock, JUnit, Mockito, Docker, Maven, Splunk, MongoDB, Kubernetes, Jira, Confluence, Jenkins, and GitLab.

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Routetitan - Remote   04/2021 - 10/2021

• Spearheaded the back-end development of a Route Optimizer application, solving up to 5000 routing problems daily.
• Overhauled deployment architecture using GitLab and cloud services, reducing costs and streamlining cloud integration.
• Implemented and integrated Java, Spring, Quarkus, JPA, PostgreSQL, MongoDB, AWS, GCP, JUnit, Mockito, Grafana, GitLab, and Jira to enhance system performance and reliability.
• Provided guidance as a part-time technical consultant until June 2022, contributing to ongoing project success by offering strategic insights and technical expertise that improved project outcomes.

Senior Backend Developer

Devolon - Remote   02/2020 - 02/2021

• Architected and developed a fintech platform for children's financial management using microservices-based architecture, serving as an issuer for multiple branded card programs.
• Implemented comprehensive REST APIs and ISO-8583 message handling for mobile clients and partner companies, enabling seamless integration with the Mastercard network.
• Streamlined development processes and improved system reliability by utilizing Java, Spring, Quarkus, JPA, JPOS, PostgreSQL, AWS, Spock, Mockito, LocalStack, Grafana, Bitbucket, and Jira, resulting in faster development and deployment time.

Senior Software Engineer

Farazpardazan - Remote   12/2016 - 01/2020

• Delivered a Payment Assistant application, overseeing its growth to 12 million users and 2 million daily transactions.
• Enhanced the performance of SQL queries, achieving a 90% reduction in execution times for complex queries.
• Directed a Personal Financial Management application with 500K active users as Product Owner of a SCRUM team of 6.
• Developed and maintained applications using Java, Spring, microservices, JPA, Postgres, RabbitMQ, and jPOS (ISO-8583), JUnit, Mockito, Jira, and GitLab CI/CD.

Software Developer

PartGames Studio - Remote   01/2015 - 11/2016

• Crafted a high-performance back-end service for an online physics game with 230K players, utilizing Java, Spring, MySQL, Redis, Vaadin, and WebSocket. Implemented real-time interactions, payment management, and a versatile back-office system for user and parameter management.
• Developed and optimized various components of the game using Java, Spring (MVC, WebSocket, Security, Data, etc.), Hibernate, MySQL, Vaadin, and Redis, which improved system performance and user experience.

Software Developer

Rahkar Novin - Remote   06/2014 - 12/2014

• Developed and launched a Groupon-style customer loyalty platform connecting 200+ local stores with organizations, featuring RFID-based membership tracking and a multi-tier rewards system.

Education

Master of Science in Computer Science   08/2022 - 05/2024

Indiana State University - Terre Haute, IN, USA

• Taught a course on Linux and Networking.
• Attained a ninety percent tuition waiver through participation in a graduate assistantship.

Bachelor of Engineering in Information Technology

University of Mazandaran - Babolsar, Mazandaran

Publications

Untapping the Power of Indirect Relationships in Entity Summarization	WSDM 2025
Wiki Entity Summarization Benchmark	ArXiv
Vertex ordering with precedence constraints	FCT 2023

Skills

Programming Languages: Java, Python
Programming Essentials: Algorithms, Data Structures, Troubleshooting, Debugging, OOP, SOLID, Design Patterns
Frameworks & Libraries:
• Application: Spring Boot, Spring Cloud, Spring Security, Hibernate, JPA, Quarkus
• Testing: JUnit, Mockito, WireMock, Spock, Cucumber, LocalStack, TestContainers

Cloud & Infrastructure:
• AWS: ECS, Fargate, EC2, S3, RDS, SQS, SNS, DynamoDB, Lambda, IAM, CloudWatch, CloudFormation, Secrets Manager
• DevOps: Docker, Kubernetes, Jenkins, GitLab CI/CD, Jenkins
• Logging and Monitoring: Grafana, Splunk, New Relic

Data Technologies:
• SQL: PostgreSQL, MySQL
• NoSQL: MongoDB, Neo4j, Redis
• Messaging: RabbitMQ, Apache Kafka

Domain Expertise:
• Financial Systems: Payment Processing, Card Authorization Systems, Real-time Transaction Processing
• Integration Protocols: Mastercard, VisaNet, and Discover ISO-8583 Format, REST APIs
• Architecture: Microservices, Event-Driven Architecture, Distributed Systems

Tools & Platforms:
• Development: JDK, Maven, Gradle, Git
• Project Management: Jira, Confluence