Mo Sorkhpar | Senior Software Engineer

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Summary

Software Engineer with 7+ 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.

Work Experience

Senior Java Developer

Ascendion - Chicago, IL, USA   09/2024 - Present

• Participated as a Scrum team member in integrating a network into an existing card authorization system that processes ISO-8583 messages for one of the top 5 U.S. credit card companies. Actively deployed, cloned, modified, tested, and refactored existing flows to ensure the new payload message and network requirements aligned seamlessly with the current architecture while maintaining system integrity.
• Developed an innovative IntelliJ plugin to interpret and auto-complete the internal custom CI/CD syntax.
• Utilized Java 17, Spring, jPOS (ISO-8583), PostgreSQL, AWS, BDD with Cucumber, JUnit, Mockito, Shell scripting, Docker, Maven, WireMock, HashiCorp Vault, Splunk, New Relic, Jira, Confluence, Jenkins, and GitHub.

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.
• Utilized Spring, Linux, Python, PyTorch, Google-OR tools, and NetworkX.
• This project started in **April 2023** as part of my graduate assistantship. Later, I remained engaged as a volunteer until **September 2024** to finalize and publish three research papers.

Senior Software Engineer

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.

Senior Software Engineer

Routetitan - Remote   04/2021 - 09/2021

• 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.
• Utilized Java, Spring, Quarkus, JPA, PostgreSQL, MongoDB, AWS, GCP, JUnit, Mockito, Grafana, GitLab, and Jira.
• Continued working as a part-time consultant until **June 2022**, providing cloud services and algorithms expertise.

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.
• Designed sophisticated parental control features, including transaction monitoring, approval workflows, and programmable allowance systems.
• Implemented comprehensive REST APIs and ISO-8583 message handling for mobile clients and partner companies, enabling seamless integration with the Mastercard network.
• Utilized Java, Spring, Quarkus, JPA, jPOS, PostgreSQL, AWS, Spock, Mockito, LocalStack, Grafana, Bitbucket, and Jira.

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.

• Launched a commercialized scalable leaderboard management service, handling up to 5,000 requests per minute for 7 multiplayer games. Extended service beyond studio use, offering an API to external clients.

• Utilized Java, Spring (MVC, WebSocket, Security, Data, etc.), Hibernate, MySQL, Vaadin, and Redis.

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

Wiki Entity Summarization Benchmark   Under review
https://doi.org/10.48550/arXiv.2406.08435

Graph-aware Unsupervised Entity Summarisation   Under review

Untapping the Power of Indirect Relationships in Entity Summarization   WSDM 2025 - Accepted
https://doi.org/10.1145/3701551.3703566

Vertex ordering with precedence constraints   FCT 2023
https://doi.org/10.1007/978-3-031-43587-4_2

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, TestContainers

Cloud & Infrastructure:
• AWS: EC2, S3, RDS, ECR, SQS, SNS, DynamoDB, Lambda
• GCP: Compute Engine, Cloud Storage
• DevOps: Docker, Kubernetes, Jenkins, GitLab CI/CD
• 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: ISO-8583 Message Handling, Mastercard Network Integration, REST APIs
• Architecture: Microservices, Event-Driven Architecture, Distributed Systems

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