

# Mohanish Venkatesh

Senior Software Engineer - Java

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🔗 Portfolio Website

## 📄 PROFESSIONAL SUMMARY

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Senior Software Engineer specializing in Java backend development for enterprise platforms across Oman-based banking and government domains. Experienced in designing and modernizing distributed systems using Java, Spring Boot, REST APIs, microservices, Oracle/SQL, and secure integrations. Skilled in translating requirements into technical user stories, documenting and maintaining API contracts, and aligning delivery to business value. Strong in performance troubleshooting (application + database), production incident handling (P1), and secure delivery practices including CI/CD and DevSecOps. Comfortable collaborating with globally distributed stakeholders and running Scrum/Kanban ceremonies when needed.

## 📁 PROFESSIONAL EXPERIENCE

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10/2022 – Present  
Kochi, India |  
Frequent Onsite Visits  
to Muscat, Oman

### Software Engineer / Senior Java Backend Engineer

*Al Tomouh IT*

- Designed, developed, modernized, and supported enterprise applications for banking, government, healthcare, and internal business platforms.
- Designed and delivered backend services using Java and the Spring ecosystem (Spring Boot/MVC/Security/Data JPA) for banking and government platforms.
- Translated functional requirements into technical user stories, API designs, and implementation tasks; collaborated with stakeholders to clarify scope and acceptance criteria.
- Built and maintained secure REST APIs, including API documentation and lifecycle updates (versioning, backward compatibility, and contract changes).
- Optimized Oracle SQL/PL/SQL (schemas, packages, procedures, functions, triggers, and views) and supported design discussions around relational vs. NoSQL trade-offs where applicable.
- Owned P1/critical production support: triaged incidents, coordinated fixes across teams, performed root-cause analysis, and drove preventive actions through defect and backlog management.
- Identified and resolved performance bottlenecks across application and database layers in distributed environments (query tuning, reducing chatty calls, improving batch/report workloads) to improve stability and response time.
- Led and reviewed technical approaches for modernization initiatives (microservices migration, dependency upgrades, refactoring), including design reviews and approval of implementation concepts.
- Analyzed end-to-end system flows and integrated enterprise services such as PKI 2.0, NRS, payment gateways, LDAP/Active Directory, Microsoft Exchange, and SMS services.
- Coordinated evaluations/PoCs of tools and frameworks for engineering needs (documentation, quality, delivery); supported hiring through screening and technical interviews.
- Improved documentation efficiency by standardizing API documentation and enabling repeatable generation/updates as part of delivery workflows.

01/2022 – 09/2022  
Remote | Muscat,  
Oman

### DB Developer & Java Backend Developer

*Petadart*

- Provided end-to-end support for enterprise applications, covering database development, backend API development, deployment, integration testing, and maintenance.
- Developed and optimized Oracle SQL and PL/SQL components, including packages, procedures, functions, triggers, views, sequences, and database objects.
- Built lightweight backend services and business components using Spring Framework, Spring Boot, Spring Data JPA, Spring Security, and microservices architecture.

- Developed secure RESTful APIs and integrated external services based on client requirements.
- Worked on integrations with Oman Public Key Infrastructure (PKI) and ePayment gateway services.
- Implemented integrations with Microsoft Exchange Server, LDAP / Microsoft Active Directory, and SMS gateways such as Omantel and Ooredoo.
- Deployed applications to Tomcat across production and staging environments with Oracle 21c backend connectivity and secure protocols.
- Used Oracle SQL Developer, MySQL Workbench, Eclipse, IntelliJ IDEA, JUnit, Log4j, Git, SOAP, and REST web services in daily development and support activities.
- Worked in an Agile development environment with strong focus on maintainability, database performance, and system stability.

04/2021 – 12/2021  
Remote | Muscat,  
Oman

### **DB Developer & Java Backend Developer**

*Inspace Solutions Private Limited, Singapore*

- Worked on database development, backend Java development, deployment, and application maintenance for enterprise systems.
- Developed and maintained SQL, PL/SQL, stored procedures, functions, triggers, and views to support data-intensive business applications.
- Supported backend development and service integration using Java and Spring-based technologies.
- Assisted with deployment, testing, issue resolution, and ongoing maintenance in client environments.
- Contributed to stable delivery of business-critical application and database changes.

## CORE SKILLS

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### **Languages**

Java, SQL, PL/SQL, Python

### **APIs & Documentation**

REST APIs, API versioning, API documentation (OpenAPI/Swagger), technical documentation, technical user stories

### **Databases**

Oracle, Microsoft SQL Server, MySQL, SQLite, MongoDB, SQL tuning, schema optimization, NoSQL trade-offs

### **Testing & Security**

JUnit; security testing practices (SAST/DAST concepts), vulnerability remediation, secure coding (OWASP awareness)

### **Collaboration**

Agile Scrum / Kanban, sprint planning, backlog refinement, stakeholder coordination, design reviews

### **Content & Repository**

Apache Jackrabbit, Document Management Systems, NoSQL-backed content storage

### **Frameworks**

Spring Boot, Spring MVC, Spring Security, Spring Data JPA, Hibernate, Struts 2, Spring Batch

### **Architecture**

Microservices, Distributed systems, Backend architecture, System design, Secure API development, Integration patterns

### **Performance & Reliability**

Troubleshooting in distributed systems, root cause analysis, JVM/JProfiler (as needed), query optimization, incident management (P1)

### **DevOps/DevSecOps**

Git, Maven, Tomcat; CI/CD Jenkins, GitLab CI/CD, Azure DevOps Pipelines; Code quality: SonarQube; Dependency scanning: Snyk, OWASP Dependency-Check; Container scanning: Trivy; Secrets scanning: GitLeaks; Artifact repositories: Nexus, Artifactory

### **Reporting**

JasperReports, Dynamic Reporting, Stored Procedures, Triggers, Functions

### **Integrations**

PKI 2.0, NRS, Bank Sohar Payment Gateway, Payment Enquiry Schedules, LDAP/Active Directory, Microsoft Exchange, SMS Gateway

## KEY ACHIEVEMENTS

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- Architected and delivered enterprise applications across **banking, government, healthcare, and internal business platforms**.
- Upgraded legacy systems from **Java 8 to Java 21** as part of modernization initiatives.
- Built secure backend APIs and integrations aligned with **banking and government security standards**.
- Supported **mission-critical production systems** and resolved **P1 / critical incidents**.

- Designed and optimized complex **Oracle, SQL Server, SQLite, and MongoDB-backed** data solutions.
- Contributed to **technical hiring and candidate evaluation** for government delivery projects.
- Delivered **microservices, reporting solutions, payment integrations, vulnerability fixes, and DevSecOps-aligned improvements**.

## **SELECTED PROJECTS**

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### **Case Management System (CMS)**

*Ministry of Interior (MOI)*

Tech: Java, Spring MVC, Spring Boot, Spring Security, Oracle 21c, MySQL, PL/SQL, JasperReports, Maven, GitLab, SonarQube, Nexus, Postman, Swagger/OpenAPI, JUnit, Apache Tomcat

- Architected and developed the system from design through production rollout.
- Delivered backend modules, integrations, and reports for mission-critical operations; documented service endpoints and key technical flows for support and handover.
- Troubleshoot and optimized application and database performance issues, improving system stability and backend efficiency for production use.

### **CMS Modernization**

*Ministry of Foreign Affairs (MOFA)*

**Tech:** Java 21, Spring Framework, Oracle, Docker, Jenkins, Snyk, Git, Linux

- Modernized and enhanced the existing CMS platform to meet MOFA requirements and improve maintainability, deployment readiness, and long-term supportability.
- Upgraded the application stack from Java 8 to Java 21 and refreshed Spring framework dependencies as part of the modernization effort.
- Dockerized the application to enable consistent runtime behavior across environments and simplify deployment management.
- Built and streamlined automated deployment workflows for development and staging environments using Jenkins.
- Applied basic DevSecOps practices by integrating Snyk for dependency vulnerability scanning during the delivery lifecycle.

### **eService Suite - Customer Care Management System (CCMS)**

*Bank Nizwa & Oman Arab Bank*

Tech: Java, Spring Boot, Spring Security, Spring Data JPA, Docker, Jenkins, Snyk, GitLab,

- Developed secure customer care APIs using Spring Boot, Spring Security, and Spring Data JPA.
- Implemented role-based and privilege-based access control for users.
- Created and maintained technical documentation for the existing CCMS platform (API notes, workflow, and data flows); translated findings into technical user stories to build the new eService product.
- Worked in an Agile (Scrum/Kanban) setup; supported backlog refinement, estimation, and delivery tracking to meet release timelines.
- Supported development pipelines aligned with DevSecOps and secure delivery practices.
- Contributed to internal chatbot functionality for operational use.

### **Customer Case Management System**

*Bank Nizwa & Oman Arab Bank*

Tech: Java, Struts 2, Oracle 11g, SQL Server, SOAP

- Supported, maintained, and enhanced legacy customer care and case management applications built on Struts 2.
- Resolved production incidents, fixed defects, and delivered client-driven change requests to support business continuity and customer operations.
- Implemented security and vulnerability fixes to maintain compliance, system stability, and application reliability.
- Delivered reporting improvements and external system integration enhancements across customer support platforms.

### **eService- Enjaz System [Technical and Health Services]**

*Ministry of Interior (MOI)*

Tech: Java, Spring Boot, Microservices, JasperReports, PKI 2.0, NRS, Bank Sohar Payment Gateway

- Provided critical production support for Technical and Health Services applications and delivered client-requested enhancements.
- Developed microservices and backend components for new requirements and service improvements.
- Implemented PKI 2.0 authentication integration for secure access and identity verification.
- Delivered NRS integration and external system connectivity for enterprise workflows.
- Integrated Bank Sohar payment gateway and developed a Payment Enquiry Scheduler Service for payment verification and transaction follow-up.
- Built and optimized JasperReports for operational and management reporting.

### **Document Management System (DMS)**

*Ministry of Interior (MOI)*

Tech: Java, Apache Jackrabbit, MongoDB

- Implemented change requests and system modifications for the MOI Document Management System.
- Worked on Apache Jackrabbit-based repository components and backend enhancements for document management workflows.
- Supported a system using MongoDB internally for document-oriented storage, providing practical exposure to NoSQL-backed architecture and document repository design.

### **National Water Information System (NWIS)**

*Ministry of Agriculture, Fisheries and Water Resources(MAFWR)*

Tech: Java, Spring Batch, Oracle, REST APIs

- Resolved production issues and optimized workflows for improved application stability.
- Removed unnecessary API calls and improved service response handling.
- Optimized reports and automated recurring report generation using Spring Batch.

### **Bahwan Mart**

*Bahwan IT Internal Project*

Tech: Java, Oracle, PL/SQL

- Contributed to application architecture, database design, workflow procedures, and report procedures.
- Developed audit-related triggers and backend data-layer logic for internal operations.

### **Project Invoice Management Tool**

*Al Tomouh IT Internal Project*

Tech: Java, Spring Boot, Workflow APIs

- Contributed to solution architecture, backend API development, and workflow implementation for internal invoice processing.

### **e-Office System**

*Ministry of Commerce, Industry and Investment Promotion (MOCI)*

Tech: Oracle 11g, SQL Optimization, Migration, Reporting

- Provided critical production support, client coordination, reporting, and change request delivery
- Stabilized and optimized a large Oracle 11g database containing approximately 22 years of legacy data.
- Supported migration and performance improvement for long-running enterprise workflows.

### **e-Office System**

*The General Secretariat of the Tender Board (GSTB) & Royal Oman Police (ROP)*

Tech: Python, Team Leadership, Delivery Coordination

- Served as Team Lead for the ROP implementation, coordinating deliverables, timelines, and execution across project activities.
- Worked on reporting modules and developed scheduled jobs for generating and sending complex reports.
- Supported report delivery workflows to ensure timely distribution of business and operational reports.

### **Patient Care Record System (PCR)**

*Public Authority For Civil Defence And Ambulance (PACDA)*

Tech: SQLite, Microsoft SQL Server, Dynamic Reporting

- Architected the system and designed both the tablet-side SQLite database and application-side SQL Server database.
- Developed complex dynamic reports for emergency care and operational workflows.

### **Computer-Aided Dispatch (CAD) System**

*Public Authority For Civil Defence And Ambulance (PACDA)*

Tech: Microsoft SQL Server, Python, Reporting

- Delivered complex dynamic reports and database support for dispatch operations.
- Developed custom Python cron jobs to automate scheduled backend tasks.

### **eOffice Database Fix and Migration**

*Ministry of Commerce, Industry and Investment Promotion (MOCIIP)*

Tech: Oracle 11g, Spring Batch, Database Optimization, Data Migration, Validation

- Migrated the complete eOffice database to NRAA using Spring Batch, including data extraction, transformation, and controlled loads for large legacy datasets.
- Wrote data validation scripts to reconcile source vs target records, identify mismatches, and ensure post-migration integrity; improved database stability and performance for long-term operational use.
- Went on-site to coordinate with client teams, handle production validation/sign-off, and support issue triage during cutover.

### **Internal Automation Projects**

Tech: Java, Python, SMS Integration

- Automated operational reports, service uptime monitoring, and SMS-based alerts.

- Built lightweight internal tools to improve operational efficiency.

## CERTIFICATIONS

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- Oracle Cloud Infrastructure Developer Certified Associate (Oracle CertView ID: OC2284241)
- Oracle Cloud Infrastructure Foundations Certified Associate (Oracle CertView ID: OC2284241)
- Oracle Cloud Infrastructure 2021 Certified Architect Associate (Oracle CertView ID: OC2284241)
- IBM Cyber Security & Forensics Graduate (Reg. No.: 17113259)

## EDUCATION

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2017 – 2021 Chennai, India	<b>B.Tech., Computer Science Engineering (IBM-Cyber Security &amp; Forensics)</b> <i>Hindustan University</i> First Class
Muscat, Oman	<b>Higher Secondary (12th, CBSE)</b> <i>Indian School Muscat (ISM)</i>
Muscat, Oman	<b>10th CBSE</b> <i>Indian School Muscat (ISM)</i>