

Gnanesh Vemuri

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Professional Summary

- ❖ Over 5+ years of experience in building and supporting software systems using **Java** and **Python**.
- ❖ Designed, implemented, and supported highly scalable, high-performance software systems within an Agile environment, contributing both as an independent developer and a collaborative team member.
- ❖ Solid understanding of Software Engineering principles (**OOAD**, **SDLC** life cycle, Development methodologies including **Agile**, **Waterfall**, **UML** and Data modelling) and **design patterns**.
- ❖ Proficient in designing applications using **Java** and **J2EE** Design Patterns such as Creational, Structural and Behavioral patterns.
- ❖ Proficient in practicing and implementing **SOLID**, Object oriented design to promote easy maintainable code bases and application adhering to the strict coding practices.
- ❖ Developed and maintained robust Continuous Integration (CI) pipelines using tools like **Git**, **Jenkins**, **SonarQube**, **Maven**, **Selenium**, **TestNG**, **Pytest** and **Ansible**.
- ❖ Experience in building DevOps Continuous Delivery (CD) pipelines using tools like Jenkins, Jfrog, Docker, Kubernetes, AWS and OpenStack reducing time-to-market.
- ❖ Experience in developing modular and reusable code components and shared libraries using layered architecture allowing reuse across multiple services and applications.
- ❖ Specialized in **leading the design and development of scalable, high-performance REST APIs and Microservices** using modern design patterns and best practices.
- ❖ Highly skilled at **analyzing complex technical challenges** to deliver maintainable, high-impact **coding and architectural solutions**.
- ❖ Evaluate, Identify and apply innovative tools and technologies improving the system reliability and anticipate future needs.
- ❖ Hands-on experience with distributed messaging and streaming systems like Kafka and MQ to build scalable, real-time data pipelines and asynchronous processing workflows.
- ❖ Experience in **database design** and modelling using **RDBMS** Concepts.
- ❖ Commit to **drive continuous improvement** and foster a culture of excellence and productivity.
- ❖ Expertise on Peer Code Review, Unit testing and Integration testing.
- ❖ Experience in AWS cloud structured prototypes to create customized VPC, subnets, EC2 instances, and security groups. Worked on tagging standards for proper identification and ownership of EC2 instances and other AWS Services like Cloud Front, cloud watch, S3 and Cloud Trail.
- ❖ Experience with the use of Tomcat, JBoss, Jetty, Web Logic, Web Sphere application servers.

Technical Skills

Category	Details
Languages	Java, Python, NoSQL, SQL
Java Technologies	Core Java, Multi-threading, Collections, JDBC, JSP, Custom Tags, Servlets, JSTL, JNDI, EJB, JPA, JMS, Java Beans, Design Patterns
Frameworks	Spring (Core, ORM, MVC, AOP, JTA, MVC with REST), Flask, Spring Boot, Hibernate, Spring Batch, cache, Junit, Mockito, Power Mockito, log4J, slf4J
UI Technologies	JavaScript, HTML5, CSS3, Bootstrap, Angular
Web Services	REST, SOAP with JAX-WS, JNDI, REST with JAX-RS, Spring MVC
Databases	MongoDB, MySQL, Oracle 11g/10g, MS SQL Server, MSSQL
Tools / IDEs	IntelliJ, Eclipse IDE
CI/CD Tools	Jenkins, Maven, Ant, AWS, Splunk
Application Servers	Apache Tomcat, Jetty, JBOSS, WebLogic
Version Control	GIT, SVN, CVS

Work Experience

Senior Software Developer | Fantrax (Ontario) | Apr 2024 - Present

- ❖ Gather and analyze software requirements in collaboration with product owners and stakeholders, and translate them into software solutions.
- ❖ Design and develop distributed software systems using **Java**, **Spring**, **Hibernate**, and **MYSQL** to support a high volume of fantasy sports operations and financial transactions.
- ❖ Modernized legacy web architecture: Migrated, Refactored and Optimized 15+ legacy **JSP** pages to an Angular and Spring REST API based architecture. Improving page loading speed by 60% through lazy loading, optimizing SQL queries and caching layers.
- ❖ Developed real-time **AML solution**: Designed and implemented a real-time AML rules engine for deposits, withdrawals, and peer payouts, flagging suspicious activity with risk scores and explainable alerts.
- ❖ Built an investigation dashboard for the compliance teams with alert triage, audit trails and case disposition tracking to streamline the user review process. Reducing the manual review by 40% through risk scoring and automating low risk alert solutions.
- ❖ Implemented fintech-driven payment Integration: Design, Develop, and Support **payment processing solution** to facilitate bank account linking using fintech providers, enabling seamless ACH payments. Improving payment reliability and user experience.

- ❖ Following strict security and data retention policies to comply with open banking standards, ensuring protection of user identity information, encryption of sensitive data, and adherence to privacy regulations.
- ❖ Built User Verification Solution: Integrated **KYC**, Identity Verification (**IDV**) and watchlist screening against sanctions, **PEP** or adverse media via third party providers to enforce **risk-based** verification and **EDD** workflows before funds movement. Ensuring regulatory compliance and enhancing user verification accuracy.
- ❖ Enforcing the payments and deposits for the verified users resulted in the reduction of chargebacks by 65% and cut manual review time by 70%.
- ❖ Built high performance **REST** Apis optimizing rule evaluation logic to achieve 0.01 ms latency per transaction check enabling the real-time decisioning of transactions without affecting game play and payment flow. Standardized response contracts (ALLOW, REVIEW, BLOCK) to simplify orchestration across services.
- ❖ Write, modify, and maintain software systems that retrieve, process, and update real-time sports data from external data providers, enabling users to receive notifications on the latest scores and live match statistics.
- ❖ Built IP-based location-verification service: Designed and Implemented a centralized IP geolocation **microservice** integrated with external IP intelligence providers to detect **VPNs**, **proxies** and anonymized traffic. Deployed platform wide to verify user location authenticity and enforcing state and provincial eligibility restrictions in line with DFS regulations.
- ❖ Collaboration with front-end developers and external vendors to facilitate smooth system integration and deployment.
- ❖ Provide product support, investigating support tickets, and implementing fixes to ensure smooth operation and minimal downtime.
- ❖ Adhere to **OWASP** secure coding principles and object-oriented design principles to ensure protection against common security vulnerabilities and code quality.
- ❖ Maintain and update technical documentation for code, system design and external service integrations and newly updated software.

Senior Software Engineer | Sun Life (Ontario) | May 2023 - Feb 2024

- ❖ Collect the stakeholders' requirements and document them as actionable development items with scope and objectives.
- ❖ Designed, developed, debugged and tested the web-based application using the Spring, Spring Boot, Spring MVC, Spring Data JPA, Spring Security, Spring Caching architecture.
- ❖ Created a RESTful API using Spring Boot and Java that can perform CRUD operations on a database.
- ❖ Used Spring Data JPA to interact with the database and Spring MVC to create REST endpoints.
- ❖ Implemented authentication and authorization for API endpoints and integrated with various authentication providers like LDAP, OAuth2, and SAML in the application.
- ❖ Effectively used Spring Batch to process large numbers of requests in batches by using features like transaction management, job scheduling, and error handling.

- ❖ Built a microservices using Spring Boot that consumes data from a Kafka topic and provides a REST API to access the processed data.
- ❖ Lead the design, development, and deployment of code to non-production and production environments.
- ❖ Conduct peer code reviews focusing on identifying security vulnerabilities and promoting secure coding principles.
- ❖ Develop and maintain documentation and best practices for using Kafka, Spring Boot, and Java, and provide training and support to other developers and stakeholders.
- ❖ Used Hibernate, Object/Relational-Mapping (ORM) solution, technique of mapping data representation from MVC model to Oracle Relational data model with a SQL-based schema.
- ❖ Developed modular, responsive templates using HTML5, Query, JSP, JavaScript, Bootstrap, and CSS.
- ❖ Implemented client-side data validations using JavaScript and server-side data validations using JSF validators.
- ❖ Created reusable components to improve code maintainability and reusability and optimized the code to improve web performance.
- ❖ Developed CI/CD pipelines by using Jenkins, SonarQube, Maven, Robot Framework, AWS and OpenStack.
- ❖ Containerization of applications using Docker File.
- ❖ Setting the logging, monitoring features for the production application and linking the log metrics and other data to centralized platforms like Splunk.
- ❖ Presented application demos to end clients, highlighting software features and benefits, addressing questions and concerns, and promoting successful adoption.
- ❖ Formulated Use Cases for each business requirement and normalized the use cases to suit the requirements.
- ❖ Comprehending and evaluating business needs and specifications.
- ❖ The UML use case designs are developed using Rational Software Architect v7.0/6.0.
- ❖ Developed SQL, PL/SQL with Stored Procedures to interact with Persistent databases using Oracle10g.
- ❖ Designed the database and Normalized the Database in 3NF.
- ❖ Normalization resolved the trivial dependencies, non-key attribute & transitive dependencies using 1NF, 2NF & 3NF.
- ❖ Planning and coordinating with other application teams, DevOps, web hosting, and business testers to facilitate web application integration, deployment, and verifying the post deployment operation.
- ❖ Mentoring new graduates and co-op students by introducing the application architecture, scope of work, and key technical challenges and check-ins to provide necessary support.

Software Researcher | Link2Feed (Ontario) | May 2022 - Aug 2022

- ❖ Developed a web page using HTML, CSS, JavaScript and jQuery across various browsers and thereby achieving cross browser compatibility.
- ❖ Work together to plan, build, test, and validate the quality of web-based software with other software developers, business analysts, and software architects.

- ❖ Implemented Page Object Model Automation framework with Java, Junit, Selenium WebDriver, and TestNG.
- ❖ Proficiency in **Selenium, GIT, Jenkins, WebDriver, TestNG** Proficiency in Web-driver automation for Chrome and Firefox.
- ❖ Creating framework, fixing framework, fixing and writing scripts using **Java** and Selenium WebDriver.
- ❖ Participate in design and architectural discussions to understand testability and automation test impact of new features..
- ❖ Work on product creation and promotion with a development team.
- ❖ Deliver solutions on schedule and under budget while following high-quality development guidelines.
- ❖ Assist in gathering and describing user requirements, creating user stories, creating estimates, and developing work plans.
- ❖ Create automated test cases for applications by designing, developing, and constructing them in compliance with accepted standards.
- ❖ Evaluate and put into practice quality control procedures and toolkits for continuous integration and automated software testing.

Software Engineer | Tata Elxsi (Chennai, India) | Nov 2018 - Feb 2022

- ❖ Prepare and update documentation for newly developed and modified software to support future maintenance.
- ❖ Collaboration with Stakeholders, Business users and Business Analysts to gather requirements.
- ❖ Responsible for handling the backend development for Telecom Vendors like Vodafone.
- ❖ Involved in the analysis & design of the application using UML with Rational Rose.
- ❖ Generated Use case diagrams, Class diagrams, and Sequence diagrams using Rational Tool Suite.
- ❖ Developed key parts of the application such as Spring forms, Spring controllers, JSP views, as well as business and data layers which include the Hibernate ORM, hibernate entities, Spring-Hibernate Data Access Object (DAO), and Spring models.
- ❖ Caching the frequently accessed data, such as user profiles or product catalogues, by using Spring Cache.
- ❖ Comparing various performance and features of the different caching providers, and choosing the one that best fits the application requirements.
- ❖ Created customizable Dynatrace dashboards and reports for metrics like Incoming requests, Memory, CPU, and RAM to help you visualize application performance data.
- ❖ Developed Custom Tag Libraries for the use in web pages by using JSTL packages for the development of the Web Pages.
- ❖ Developed Application controllers, Business and Data service modules for the web applications.
- ❖ Implemented Restful web services (JAX-RS)
- ❖ Used JNDI to lookup for the data sources required and used Eh cache for general purpose caching.

- ❖ Worked on SOA/Web Services and created request and response WSDLs.
- ❖ Designed tables in Oracle 10g database and worked with Database Developers for implementing Stored Procedures in the application
- ❖ Assisted Database Developers using PL/SQL for managing data associated with the tables.
- ❖ Integrated Kafka with a messaging system like RabbitMQ or ActiveMQ using the Kafka Connect API.
- ❖ Implement a custom partition in Kafka to distribute messages across multiple brokers for better scalability.
- ❖ Implement error handling and retry mechanisms for Kafka producers and consumers to handle exceptions and ensure message integrity
- ❖ Involved in SQL query optimization and performance monitoring.
- ❖ Used Maven for dependencies and configuration management.
- ❖ Developed Maven scripts for the build and deployment of J2EE components in application server.
- ❖ Involved in designing test plans, test cases and overall Unit testing of the system.
- ❖ Support the software release process by performing pre-deployment and post-deployment technical validations to ensure system stability and minimal disruptions.

Education

Bachelor of Computer Science, India.

PGDM in Cloud Computing, North York, Canada.