**MADHU S**

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**Sr. Java Full Stack Developer**

**Professional Summary**

* With around **9 years** of experience as a Java Full Stack Developer, adept in the full **Software Development Lifecycle** (SDLC), specializing in the design, development, and deployment of **enterprise-grade applications**.
* Proficient in **Agile** practices, including **SCRUM and TDD,** to drive efficient, iterative development and ensure high-quality software delivery.
* Proficient in analyzing, designing, and developing applications using **Java** technologies, including **Lambda expressions, Collections, Stream API** and **Servlets**, to create efficient and scalable solutions.
* Extensive experience in developing complex **Frond End Applications** using **HTML5, JavaScript, CSS3,** and **XML**, ensuring responsive and user-friendly interfaces.
* **Proficient in leveraging Data structures like HashMap, ArrayList, and LinkedList to optimize data manipulation and improve performance in complex systems.**
* Proficient in modern **JavaScript** frameworks and libraries, including **Angular, React, jQuery,** and **TypeScript**, for building dynamic and efficient web applications.
* Skilled in implementing **Microservices** architecture using **Spring Boot** to enhance the scalability and flexibility of web applications, ensuring seamless integration with backend systems and improved performance.
* Experienced in leveraging **Spring IoC, Spring Boot, Spring Cloud**, and **Hibernate** to build scalable, secure, and high-performing applications in dynamic, production environments.
* Experienced in using **Node.js** to build scalable, efficient server-side applications with real-time data processing.
* Proficient in designing and implementing **RESTful APIs** and **SOAP-based** web services, utilizing **Swagger** for comprehensive **API documentation**, ensuring seamless communication, security, and efficiency.
* Experienced in utilizing **Spring Security, GWT,** and **OAuth2** to design and implement secure **API authentication** and **authorization**, ensuring reliable access control and data protection across applications
* **Proficient in AWS services including EC2, S3, RDS, Lambda, IAM, CloudFormation, and VPC, with hands-on experience in end-to-end deployment and management of scalable, secure solutions.**
* Proficient in utilizing **Azure** services such as **Virtual Machines, Blob Storage,** and **SQL Database** to build scalable, reliable applications, optimizing performance and ensuring seamless data management in cloud environments.
* **Proficient in PostgreSQL, Oracle, and SQL Server for efficient data management, complex queries, and database optimization.**
* **Experienced with MongoDB, Cassandra, and DynamoDB for scalable, high-availability NoSQL solutions, handling large-scale, unstructured data.**
* **Proficient in implementing messaging systems with Kafka, ActiveMQ, RabbitMQ, and AWS SNS/SQS, ensuring seamless, scalable, and fault-tolerant communication across distributed systems.**
* **Utilized CloudWatch, ELK Stack, Prometheus, Grafana, and Splunk to proactively monitor application performance, ensuring quick identification and resolution of issues for optimal system reliability.**
* **Proficient in implementing automated testing solutions using JUnit, Mockito, Postman and Selenium ensuring high code quality and reliability in both frontend and backend components.**
* **Proficient in Docker, Kubernetes, OpenShift, Jenkins, and Terraform for automated, scalable deployments and efficient CI/CD pipelines in cloud environments.**
* **Strong experience with version control using Git, SVN, AWS CodeCommit, and GitHub for efficient collaboration and code management.**
* **Extensive experience working with application servers such as WebLogic and Tomcat for robust and scalable application deployment.**
* **Experienced in automating build and deployment processes with Maven and Gradle, ensuring seamless releases.**

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| **Web Technologies** | Java, Node.js, JavaScript (ES6), TypeScript, HTML5, CSS3, AJAX, XML |
| **Backend Development** | Spring (Cloud, MVC, Boot, Batch, Data, Security), Microservices, RESTful APIs, SOAP Web Services, React, Angular, jQuery, Swagger |
| **Messaging & Streaming** | Kafka, ActiveMQ, RabbitMQ, AWS SNS/SQS |
| **Monitoring & Testing** | Splunk, ELK stack, Prometheus, Grafana, JUnit, Mockito, Postman, Selenium |
| **Databases** | Oracle, PostgreSQL, SQL server, Cassandra, MongoDB, My SQL, Dynamo DB. |
| **DevOps & CI/CD Tools** | Jenkins, Docker, Kubernetes, OpenShift, Terraform, Git, SVN, GitHub |
| **Cloud**  | AWS (EC2, IAM, S3, RDS, VPC, Lambda, CloudFormation, CodeCommit, CloudWatch),Azure (Blob Storage, Virtual Machines, SQL database) |
| **Build & Deployment** | Gradle, Maven, Web Logic, Apache Tomcat |

**Professional Experience**

**Ally Bank Detroit, Michigan**

**Sr. Java Full Stack Developer Jan 2024 to Present**

* Contributed to **Agile development practices** by actively participating in **Scrum** and **iterative development cycles**, enhancing team collaboration, accelerating delivery times, and achieving business goals.
* Optimized system performance using **Java** features like **Collections, Streams,** and **Lambda**, enhancing **transaction processing, fraud detection**, and real-time anomaly analysis for improved efficiency and security.
* Developed a **transaction management system** using **Angular** and **TypeScript**, implementing reactive forms, state management with **RxJS**, ensuring seamless **payment processing** with 25% performance improvement.
* Implemented **Angular Router** for seamless navigation and developed **Angular services** to integrate frontend with backend APIs, enabling real-time transaction monitoring, fraud detection, and secure payment processing.
* **Built backend services with Spring Boot and Java**, implementing core functionalities like **order management** and **payment processing**, ensuring seamless integration with the frontend through secure **RESTful APIs**.
* Developed scalable **microservices** using **Spring Boot**, utilizing **auto-configuration**, **Actuator** for monitoring, and **Spring Cloud Config** for centralized configuration management, reducing system downtime by 20%.
* Designed and developed **RESTful APIs** using **Spring Boot**, ensuring efficient data handling, seamless communication, and integration with business components and **hibernate** for optimized database interactions.
* Designed and implemented secure access controls using **Spring Security OAuth 2.0** and **JWT**, ensuring **HIPAA** compliance and safeguarding sensitive data, contributing to a 30% reduction in security breaches.
* Integrated **Kafka** as a messaging platform for **asynchronous communication** between microservices, ensuring **high throughput**, **fault tolerance**, and decoupled service interaction for optimal system performance.
* Managed structured data with **PostgreSQL**, optimizing SQL queries, indexing, and transactions for efficient data retrieval and high-performance processing.
* Designed and implemented normalized schemas in **PostgreSQL** for efficient data storage, ensuring smooth handling of complex relationships and improving data consistency across the **order management** and **billing** modules.
* Managed unstructured data with **MongoDB**, utilizing advanced operations like **aggregation queries** data processing, ensuring fast and reliable interactions in high-demand environments.
* Developed and executed comprehensive **unit tests** with **JUnit** and **Mockito Framework**, ensuring robust code quality, functionality, and comprehensive test coverage for mission-critical applications.
* Designed and implemented **CI/CD pipelines** in **Jenkins** with **Kubernetes** and **Docker**, automating integration, testing, and deployment for consistent delivery across environments.
* Implemented the **ELK Stack** to enhance **monitoring** and **log aggregation**, improving **real-time troubleshooting**, operational visibility, and system diagnostics in complex distributed systems.
* Implemented **AWS** cloud services such as **EC2, S3, RDS, VPC, Lambda,** and **Elastic Beanstalk** to deploy scalable, resilient applications, optimizing performance, resource utilization, and cost-efficiency.
* Implemented **AWS Lambda functions** to automate transaction processing, enabling real-time payment updates, fraud detection, and streamlining order management, reducing delays and enhancing operational efficiency.
* Implemented **AWS SNS** and **SQS** for reliable messaging and decoupled communication between microservices, enhancing system scalability and fault tolerance.
* Utilized **Git** for **software configuration management** and **version control**, facilitating efficient code collaboration and tracking changes across development teams.
* Integrated **log aggregators** like **ELK**, alongside **slf4j** and **log4j**, for advanced log analysis, optimizing debugging processes, and improving system observability and performance monitoring.
* Automated **project builds** with **Gradle**, optimized dependency management, and deployed applications on **Tomcat**, ensuring efficient, repeatable builds and streamlining the development process.
* Generated comprehensive **business reports** using **Jasper Reports**, integrating dynamic data into structured formats for real-time analysis and decision-making, improving reporting processes and user accessibility.

**Environment:** Java 17, Angular, Spring (Boot, IOC, Cloud, Security OAuth 2.0), Hibernate, RESTful Web Services, Kafka, MongoDB, JUnit, Mockito, Jenkins, Kubernetes, Docker, ELK Stack, AWS (Lambda, S3, RDS, DynamoDB, VPC, SNS, SQS), Log4j, SLF4J, Gradle, Tomcat, Git, Agile, Jasper Reports.

**Charles Schwab Austin, Texas**

**Sr. Java Full Stack Developer Feb 2022 to Dec 2023**

* Worked in **Agile** sprints to develop and optimize **transaction processing** and **financial data update systems**, ensuring timely feature delivery and quick adaptations based on business requirements.
* Utilized **Java** concepts such as **Multithreading, Collections, Generics, Lambda Expressions,** and **Stream APIs** to optimize performance in **trade execution, order processing,** and **market data updates**.
* Developed dynamic and responsive web applications using **HTML, CSS, JavaScript,** and **Angular** optimizing performance with lazy loading, ensuring smooth navigation, and creating reusable UI components.
* Developed an **investment** **portfolio** **tracking** module using **Angular Forms** for real-time input validation and HTTP Client for seamless API communication, ensuring accurate portfolio updates and performance tracking.
* Designed and implemented **RESTful microservices** using **Spring Boot** for trade execution, focusing on real-time market data updates and ensuring efficiency and scalability.
* Built and optimized the applications using **Spring Boot** and **Spring Data JPA**, ensuring efficient data management and seamless integration with external services.
* Utilized **Spring Boot’s Dependency Injection** and embedded servers for rapid microservice development, employing **Spring Cloud Eureka** for efficient service discovery and communication.
* Secured **RESTful APIs** using **Spring Security** and **JWT authentication**, enforcing robust role-based access control and ensuring compliance with security best practices for transaction processing and account management.
* Implemented event-driven architecture using **Apache Kafka**, enabling real-time data processing and updates through efficient inter-service communication.
* Automated infrastructure with **Terraform**, managed **Kubernetes** deployments, and streamlined **CI/CD pipelines** with **Jenkins**, ensuring seamless Docker Hub integration and faster release cycles.
* Optimized data management in **Oracle**, utilizing **indexing, partitioning,** and **query optimization** techniques for enhanced performance, scalability, and secure API-driven access.
* Designed and managed financial data in **Oracle**, developing **optimized schemas** and **complex queries** to efficiently handle transaction records and credit assessments, ensuring secure and fast data retrieval.
* Integrated **Splunk** for centralized log management and **Prometheus** for system monitoring, enabling real-time log analysis, metric collection, and proactive issue resolution to optimize performance.
* Streamlined testing processes using **JUnit**, **automating unit tests** within the build pipeline, and enhancing development workflow efficiency by 30%.
* Implemented **Selenium WebDriver** for **end-to-end testing** of web applications, automating UI tests and improving **test coverage**, while ensuring high-quality **user experience** across browsers.
* Utilized **Amazon DynamoDB** to efficiently manage and store data for backend metrics and reporting applications, optimizing data retrieval and scalability.
* Utilized **AWS Lambda** for serverless processing and automated deployment using **AWS CloudFormation**, optimizing scalability and cost-efficiency, while managing application hosting on **EC2** instances and storage with **S3**.
* Maintained **source control** using **GitHub** and **AWS Code Commit**, ensuring proper versioning of the codebase, facilitating smooth collaboration across multiple teams.
* Configured and deployed enterprise applications on **WebLogic** **Server**, optimizing performance, scalability, and security while ensuring high availability in a clustered environment.

**Environment:** Java 11, Spring Boot, Spring Cloud, Spring Data, Spring Security, Hibernate, Angular, Microservices, SOAP, MongoDB, Oracle, AWS (EC2, Lambda, S3, DynamoDB, CloudFormation, RDS, CodeCommit), Kubernetes, Docker, Jenkins, Terraform, Prometheus, Splunk, Selenium, Apache Kafka, WebLogic, Maven, GitHub.

**United HealthCare Group Edison, New Jersey**

**Java Full Stack Developer Oct 2019 to 2021 Dec**

* Involved in various phases of **Software Development Life Cycle (SDLC)** such as requirements gathering, modeling, analysis, design, development, and testing.
* Engineered and optimized backend services with **Java** and **Spring Boot**, employing modular architecture to streamline **patient data processing, diagnostic result analysis,** and **medical history** updates via **RESTful APIs**.
* Built responsive **Angular** applications using **HTML, CSS,** and **JavaScript**, optimizing performance and modularity in **medical record tracking** with efficient state management and dependency injection.
* Enhanced user interface performance by implementing **Angular** **Directives** for reusable components, improving maintainability and ensuring seamless user experience in patient record management and diagnostic reporting.
* Designed and developed scalable web applications using **Spring Web Flow**, implementing efficient navigation and state management for enhanced user experience.
* Developed and configured **APIs** using **AWS API Gateway** and **Spring Boot**, enabling serverless applications with secure and scalable API management, routing, and integration with backend services.
* Built **REST APIs** by building **Node JS Server** in the backend to handle requests sent from the **front-end jQuery Ajax** calls and fetched **user contacts** from third-party accounts using **OAuth 2.0 Authentication**.
* Utilized **JUnit** for unit testing, **Mockito** for mocking dependencies, and **Log4J** for efficient logging, ensuring robust testing, improved code quality, and effective troubleshooting.
* Designed and developed **microservices** for processing and updates, ensuring seamless integration with data providers while optimizing system performance through efficient data handling and scalable service architecture.
* Integrated **Kafka** for high-throughput event streaming and **RabbitMQ** for reliable message queuing, optimizing asynchronous communication and data flow across distributed services.
* Developed and automated **DevOps** **pipelines** using **OpenShift** and **Kubernetes**, streamlining microservices deployment and ensuring continuous integration and delivery for faster release cycles and improved system reliability.
* Implemented **Swagger** for **RESTful API documentation**, providing a rich, interactive UI for API testing, enhancing team collaboration, and ensuring better API usability and client integration.
* Developed **Splunk** reports to **monitor** application health, providing real-time insights into transactions, user activities, and system performance, improving issue detection time by 40%.
* Utilized **Prometheus** for comprehensive monitoring and time-series data collection, while leveraging **Grafana** for advanced data visualization and dashboard creation, optimizing real-time performance tracking.
* Designed and implemented disaster recovery strategies for **PostgreSQL** databases, ensuring high availability and managed patches, upgrades, and continuous monitoring of logs to maintain database health and performance.
* Worked with **Cassandra** to design and optimize data storage models, analyzing performance and scalability for large-scale distributed systems.
* Utilized **Terraform** for Infrastructure as Code (IaC), automating the provisioning and management of cloud resources, ensuring scalable, repeatable, and efficient infrastructure deployment across environments.
* Installed and configured **Docker** for creating virtual environments, integrated with **Jenkins** and **AWS**, and utilized **AWS CloudFormation** for automating infrastructure deployment, streamlining the build pipeline, and enhancing efficiency.
* Deployed application updates to **AWS EC2** and monitored the **load balancing** of different instances and used **AWS IAM** for **access management**. Created **AWS Lambda** using **Java** to perform **event-driven processing**.
* Utilized **SVN** for version control and software configuration management, ensuring efficient codebase tracking, branching, and merging in legacy systems development.
* Utilized **Maven** for efficient project build management, streamlining dependency handling and automating deployment pipelines to improve consistency and development speed.

**Environment:** Java 11, Spring Web Flow, Hibernate, AJAX, Node.js, Angular, Apache Kafka, RabbitMQ, jQuery, PostgreSQL, Swagger, Cassandra DB, Terraform, Splunk, Prometheus, Grafana, OpenShift, Apache Tomcat, Jenkins, JUnit, Mockito, Log4j, AWS (EC2, Lambda, IAM, CloudFormation, API Gateway), SVN, GitHub, Jasper Reports, Maven.

**Target Minneapolis, Minnesota**

**Java Developer Aug 2017 to Sep 2019**

* Utilized **Java 8 features** like **Streams, Lambdas, and Date/Time API** to improve code readability, simplify data processing, and enhance performance, ensuring maintainability.
* Engineered responsive web pages with **HTML5, CSS3,** and **JavaScript**, ensuring a seamless user experience and optimal performance across diverse devices and screen resolutions.
* Utilized **React** to develop dynamic, high-performance user interfaces, enhancing interactivity, and ensuring **cross-browser compatibility** for a consistent user experience.
* Proficient in using **Spring Boot** to develop efficient and scalable microservices, optimizing system performance and ensuring smooth integration with operational processes
* Proficient in utilizing **Spring Batch** to optimize and streamline inventory management processes, improving operational efficiency and data handling.
* Strong experience in **Test-Driven Development (TDD),** ensuring code reliability and reducing defects by writing tests before implementation and refactoring.
* Secured **RESTful** **APIs** with **OAuth** token-based authentication using Spring Security and automated API tests with **Postman** for efficient validation.
* Integrated **ActiveMQ** for reliable messaging and communication between distributed systems, ensuring efficient message queuing and processing in real-time applications.
* Authored **complex SQL queries, DML scripts, stored procedures, triggers,** and **PL/SQL packages** for seamless interaction with **SQL Server databases**.
* Optimized **PostgreSQL** and **Cassandra databases**, ensuring efficient data storage and retrieval, enhancing performance and scalability for both relational and NoSQL use cases.
* Utilized **Azure Virtual Machines** for scalable compute resources and **Azure Functions** for serverless applications, enhancing performance and minimizing operational overhead.
* Managed data storage with **Azure Blob Storage** and **Azure SQL Database**, ensuring high availability and scalability in cloud environments.
* Developed and deployed containerized applications using **Docker**, and utilized **Kubernetes** for container orchestration, streamlining deployment, scaling, and management of microservices in a cloud environment.
* Managed project tasks, bugs, and agile workflows using **JIRA**, ensuring transparency and smooth communication within cross-functional teams.

**Environment**: Java, Spring Boot, Spring Batch, React, Hibernate, ActiveMQ, Web Services, Jenkins, Docker, Kubernetes, Swagger, Oracle, PostgreSQL, Cassandra, Azure (Virtual Machines, Blob Storage, SQL database), Postman, Gradle, Jira.

**JP Morgan Chase Plano, Texas**

**Java Developer Sep 2016 to July 2017**

* **Developed and optimized a J2EE-based computation module for solving mathematical equations in a multithreaded environment, improving processing efficiency and scalability.**
* Assisted in designing and **documenting** software workflows, enhancing system architecture clarity and development processes.
* Proficient in utilizing **Data structures** such as **HashMap, ArrayList,** and **LinkedList** to optimize data storage, retrieval, and manipulation, enhancing system performance and scalability
* Developed **J2EE-based architecture**, including **Servlets and JSP**, to facilitate dynamic web applications and enterprise solutions.
* Integrated **SOAP-based web services** for seamless communication between **frontend and backend systems**, improving system interoperability.
* Implemented **RabbitMQ** for asynchronous message handling, enabling reliable communication between microservices and improving system scalability.
* Implemented **AJAX-based** search functionality, improving user experience with real-time data retrieval.
* O**ptimized SQL queries** for **Oracle** and **MySQL** for real-time, low-latency data storage, ensuring efficient order processing and inventory management during peak periods.
* **Developed unit tests** with **JUnit** and **Mockito**, enhancing code reliability by testing core logic and mocking external services for isolated, efficient testing.
* Utilized **Maven** for building automation and **Git** for version control, ensuring efficient collaboration and code quality management.
* Configured and deployed **Apache Tomcat Server** for seamless development, testing, and deployment of enterprise applications.

**Environment**: Java, Data Structures, HTML, CSS, XML, JavaScript, Servlets, JSP, Struts, AJAX, Microservices, SOAP, RabbitMQ, Junit, Mockito, MySQL, Oracle, Git, Maven, Tomcat.