**Asma Mohammad**

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**Professional Summary**

* **8+ years** of experience in all phases of **software development life cycle (SDLC)**, which includes User Interaction, Business Analysis/Modeling, Design/Architecture, Development, Implementation, Integration, Documentation, Testing, Enterprise, and Web based applications using **Java, J2EE** technologies.
* Strong application development experience in using **Agile** Software Development methodologies like Scrum and Traditional software models like **Waterfall** and **TDD**.
* Extensive experience designing and implementing **Microservices architecture** for client-server applications, using **Spring Boot** to build scalable **RESTful web services** for seamless integration and communication.
* Expertise in developing **Single Page Applications (SPA)** using **HTML, CSS, JavaScript, Bootstrap, Angular (latest version: Angular 16), React (latest version: React 18)** with webpage browser compatibility, following guidelines for accessibility.
* Experienced in **Cloud Computing environments** such as **Amazon Web Services (AWS)**, managing services like **EC2**, **S3 buckets**, **Virtual Private Cloud (VPC)**, and **EKS for Kubernetes orchestration**, utilizing both **AWS Console** and **API Integration** for efficient cloud resource management.
* Experience in developing server-side code with good knowledge of enterprise and persistence design patterns like **Singleton, Factory, Business Delegate, Session Facade, Service locator, Visitor, Observer, Decorator, Front Controller, Data Access Object** and **MVC**.
* Extensive experience in backend frameworks, particularly **Spring** (Spring IOC, Spring MVC, Spring AOP, Spring JDBC, Spring DAO, Spring ORM) and **hibernate**, with strong expertise in building scalable enterprise applications.
* Expertise in **Java 8** features like **Streams**, **Lambda Expressions**, and **Optional**, ensuring clean, efficient, and maintainable code; skilled in conducting thorough code reviews to uphold coding standards and best practices.
* Developing inter-operable Web Services and their related technologies **like SOAP, Restful, WSDL, UDDI, XML, JAX-WS, JAXB, JAX-RPC** using tools like **Apache Axis**.
* Experience in implementing client-server business applications using **MVC** and **SOA** architecture.
* Experienced with **Middleware Technology Messaging Brokers** such as **JMS**, **RabbitMQ**, and **Apache Kafka** in **Service-Oriented Architecture (SOA)** for reliable and efficient message-driven communication.
* Implemented **SSO** with **OAuth 2.0** for token-based, decentralized authentication and authorization, ensuring secure, seamless access across distributed systems.
* Strong SQL and PL/SQL programming with databases like **MySQL**, **PostgreSQL**, and **Oracle**.
* Expertise in **NoSQL** databases like **MongoDB, DynamoDB**, and **Cassandra** databases.
* Experience in using build tools like **Gradle, ANT, MAVEN** for the development of build artifacts on the source code and **log4J** framework for logging details.
* Experience in developing test cases using **Test-Driven Development (TDD)** methodology with tools like **Cucumber**, **JUnit**, **TestNG**, and **Mockito** to ensure code quality and reliability.
* Proficient in **DevOps** tools like **Docker**, **Kubernetes**, and **Jenkins**, leveraging them for containerization, orchestration, and automating **CI/CD** pipelines to streamline development and deployment processes.
* Experience in using web app servers like **IBM Web Sphere, Web Logic, Apache Tomcat, Jetty and JBOSS Servers**.

**TECHNICAL SKILLS**

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| --- | --- |
| **Languages** | C, C++, Java, J2EE, SQL, PL/SQL |
| **J2EE Technologies** | Servlets, JDBC, JSP, JSF, JMS, EJB, Java Security, JMS (ActiveMQ, Rabbit MQ) |
| **Mark-up/XML Technologies** | HTML, CSS, JavaScript, jQuery, Ajax, AngularJS, React JS, PHP, XML, XSD, XSL/XSLT, SAX/DOM, JSON. |
| **Tools & Framework** | Struts, Spring, Hibernate, Spring MVC, Spring IOC, Spring AOP, Spring Boot, Spring Cloud, Spring Security, OAUTH2, JSF, JUnit, SOAP UI, PHP, Apache ActiveMQ. ANT, Maven, Apache camel. |
| **Web services** | SOAP, Restful, UDDI, WSDL, JAX-RPC, JAX-RS, JAX-WS, JAX-B, Axis2,  Micro Services, NFS & RPC API |
| **Web/App Servers** | IBM Web Sphere, Apache Tomcat, JBoss, Web Logic Server |
| **Database** | Oracle, SQL-Server 2008/12/16, Netezza, MySQL server, TOAD, MongoDB/NoSQL |
| **IDEs** | Eclipse, IntelliJ, Spring Tool Suite (STS), RAD |
| **Testing Tools/ Others** | JUnit, Soap UI, Putty, Log4j and Jira. |
| **Version Control** | Tortoise SVN, CVS, Rational Clear case, GitHub |
| **Build Tools** | Ant, Maven, Jenkins |
| **OS & Environment** | Windows, UNIX, Linux. |
| **Cloud Technologies** | AWS EC2, S3 bucket, ELB, Auto-Scaling, SNS, SQS, AMI, IAM, Dynamo DB,  Cloud front, Elastic search, Elastic Beanstalk, Virtual Private Cloud (VPC), Pivotal Cloud Foundry (PCF), Azure |

**Professional Experience:**

**Client: State of Louisiana, Baton Rouge, LA        Aug 2023 - Present**

**Role: Sr. Full Stack Java Developer**

**Responsibilities:**

* Involved in various phases of the **Software Development Life Cycle** (SDLC) such as requirements gathering, modeling, analysis, design, development, testing, and application support.
* Implemented Core Java concepts like **Multithreading, Concurrency, Exception Handling and Collections** whenever necessary.
* Applied and optimized core **Angular** features such as **Dependency Injection**, **Data Binding**, **Directives**, **Pipes**, **Templates**, and **Services** to significantly improve application performance, scalability, and maintainability.
* Utilized **Angular Router** to develop dynamic, **single-page applications** (SPA) with seamless navigation across various components and states.
* Developed **Spring Boot-based services** integrating **RESTful APIs** and **Apache Kafka** message brokers for seamless communication between microservices and distributed applications, ensuring efficient data flow and scalability.
* Leveraged **Kubernetes** to efficiently orchestrate the **deployment**, **scaling**, and **management** of **Docker containers**, ensuring seamless containerized application operations, high availability, and scalability.
* Utilized **MongoDB** by implementing **change streams** for real-time data updates and optimized database performance through **indexing** and the **aggregation framework**, significantly improving query efficiency.
* Working on performance testing of service using **JMete**r and using the **JMeter scripts** for **load testing**.
* Written several test cases using **JUnit** and **Mockito** for unit testing.
* Implemented **Microservice architecture** using **Spring Security** with **OAuth 2.0** for secure authentication and authorization, and integrated **Spring Batch** for efficient batch processing, enabling secure and scalable service interactions via RESTful APIs.
* Leveraged **Lambda Expressions**, **Functional Interfaces**, **Stream API**, **Time API**, and made enhancements to **Collections**, **Concurrency**, and **I/O operations** to improve code efficiency and performance.
* Using **Spring Data JPA** with **Hibernate** to integrate SQL Server into back-end web applications and performing **CRUD** and aggregation operations on a database.
* Deployed **Spring Boot-based microservices** in **Docker containers** using **Amazon EKS (Elastic Kubernetes Service)** for orchestration and management, along with the **AWS Management Console** for efficient deployment and scaling
* Working on end-to-end development and migrating the application to Cloud using the **AWS** availing services like **AWS EC2**, and **Elastic Search.**
* Build web forms and pages by using **HTML5, CSS4, Bootstrap**, and **JavaScript** and created asynchronous calls to the back-end server using **Ajax**.
* Implemented Angular features in the front end to build web components, modules, and services, testing was done for the **UI Components** using **Protractor** and **Jasmine**
* Maintained Interface compatibility and concurrency in the project using Java 8 new features like **default, static methods**, and **Concurrency API**.
* Developed a logging module using **Log4J** to create log files to debug and trace applications.
* Used **Spring Core Annotations** for **Dependency Injection**, and **Spring REST** for REST API.
* Involved in bug fixes, enhancements, and code refactoring on both frontend and backend functionalities.

**Environment:** Java 8/11, HTML5, CSS3, JavaScript, Bootstrap, jQuery, Ajax, Angular2, REST web services, SOAP webservices, Spring Boot, Spring IOC, Spring DI, Spring MVC, Hibernate Template, Micro Service, DB2, Mainframe DB2, OAuth, Active MQ, JBPM, LMA Logging, Junit, Mockito, Gradle, Jenkins, GitHub, VersionOne, Micro Services, VM’s, Eclipse and IntelliJ IDE.

**Client: Loblaws, Toranto, CA                 Feb 2022 - June 2023**

**Role: Sr. Java Developer**

**Responsibilities:**

* Implemented a **component-based UI** using **React**, leveraging its **Virtual DOM** and **diffing algorithms** to optimize re-paints and improve the overall performance and speed of the web application.
* Used **Spring** framework **AOP** features and **JDBC** module features to persist the data to the database for few applications. Also, used the **Spring** **IOC** feature to get hibernate session factory and resolve other bean dependencies.
* Used **Spring MVC** framework for implementing **Model-View-Controller** (MVC) architecture at the Web tier level to isolate each layer of the application so that the complexity of integration will be reduced, and maintenance will be very easy.
* Worked on Prototype designs and development in **HTML5**, **CSS3**, **Bootstrap**, **Java** **Script** and **ReactJS**.
* Involved in writing **Spring** **Configuration** **XML**, file that contains declarations and business classes are wired-up to the frontend-managed beans using **Spring** **IOC** pattern.
* Developed dynamic and responsive user interfaces using **React.js**, leveraging **React Hooks** for efficient state management and **component reusability**, resulting in improved performance and maintainability of the web application.
* Created **RESTful** web services interface to Java-based runtime engine and accounts.
* Expert in integration of the various modules over Service Oriented Architecture (**SOA**) using **JMS**, **Restful** **Web** **services** and **Micro** **Services** using **Spring** **Boot**.
* Implemented caching for product and category data using **Redis** to optimize API performance and reduce response times.
* Developed and implemented a **stream filtering system** on top of **RabbitMQ**, effectively reducing the stream size and optimizing data processing efficiency.
* Designed and implemented cloud-based solutions using **Azure services** such as **Azure App Service**, **Azure Functions,** **Azure Storage**, **Azure SQL Database**, or **Cosmos DB**.
* Ensured data integrity, implemented efficient **queries**, and managed **data storage** and **retrieval**.
* Implemented and managed continuous integration and continuous deployment (CI/CD) pipelines using **Azure DevOps**.
* Identified and resolved performance bottlenecks, optimized application, and infrastructure configurations, and monitor system performance using **Azure** monitoring tools like **Azure Monitor** and **Application Insights**.
* Developing scripts for build, deployment, maintenance, and related tasks using **Jenkins** and **Docker**.
* Involved in designing and developing the **JSON**, **XML** Objects with **MySQL**, and **NoSQL** database like **MongoDB**.
* Involved in using **JMS** Queues and **JMS** topics for one-to-one and one-to-many communication in the application.
* Used **Apache** **camel** integration for routing and transforming the data between two applications using **HTTP** protocol.
* **Splunk** supports multiple types of devices, such as workstations, servers, network devices, virtual machines, mobile, and Internet of Things (IoT) devices.

**Environment:** Java, AngularJS, Jenkins, CSS, JDBC, Servlets, JDBC, EJB, Java Beans, Hibernate, Spring MVC, Restful, JMS, MQ Series, AJAX, WebSphere Application Server 5.0, SOAP, XML, MongoDB, Maven, JUnit, Ant, Rational Suite, CVS Repository, JSP, Servlets, Node.js, Struts 2, HTML, Spring 2.5, HTML, DHTML, JavaScript, jQuery, Oracle, MySQL, IBM Web Sphere 6.0, JUnit, XLS, XML, DB2, ANT, Windows NT, AWS.

**Client: Cigna, Plano, TX                               Feb 2021 – Feb 2022**

**Role: Java/J2EE Developer**

**Responsibilities:**

* Worked as per **Agile** Methodology (**Scrum**) to meet customer expectation, timelines with quality deliverables.
* Migrated a legacy monolithic web application to a **microservices architecture** by implementing the **Strangler Fig** design pattern, ensuring a smooth transition while incrementally replacing legacy components with modern, scalable services.
* Responsible for creating efficient design and developing user interaction screens using **HTML5, CSS3, JavaScript, jQuery, Ajax** for service calls on pages to interact with the server.
* Developed static web pages using **HTML5, CSS** and client-side validations using **JavaScript**.
* Developed a cross-platform solution using **AngularJS**, implementing various **validation controls** on web pages to ensure accurate user input and functionality.
* Connected to Data sources and performed operations using **Spring Data Framework** features like **Spring JDBC** and **Spring ORM**.
* Deployed and managed applications using **AWS services** such as **EC2** for hosting, **S3** for scalable storage, **CloudWatch** for real-time monitoring, and **EKS** for orchestrating containerized microservices, ensuring high availability and efficient resource management.
* Implemented logging and transaction manager using **Spring** **AOP** concept.
* Secured APIs by implementing an **OAuth 2.0 token-based authentication and authorization** mechanism using **Spring Security**, ensuring robust access control and data protection.
* Developed the persistence layer using **Hibernate** Framework, created the **POJO** objects and mapped using **Hibernate annotations**.
* Designed and optimized **SQL queries** and **stored procedures** to efficiently interact with the **Oracle database**, improving data retrieval and processing performance.
* Analyze business requirements and develop various business delegates to integrate with Middleware services like **JAX-WS** using **SOAP and REST.**
* Developed Data Services using XML messages that use **REST** web services, Created **REST** envelope.
* Used **JAXB** to read the xml file and then created instances of a generated classes.
* Used **XSLT** to change the Data formats into **XML** to **XML** and **XML** to **PDF** formats.
* Used **JIRA** tool for Issue/bug tracking, monitoring of work assignment in the system.
* Re-designed and implemented a **continuous integration (CI) build system** using **Jenkins**, streamlining the build process for improved automation and deployment efficiency.
* Developed and executed **unit test cases** using **JUnit** and **Mockito** to ensure code accuracy and reliability, while utilizing **Log4j** for effective logging and debugging throughout the testing process.

**Environment:** Java, HTML5, CSS3, JavaScript, jQuery, AngularJS, Bootstrap, Spring MVC, Spring Boot, Spring Security, OAUTH2, Spring ORM, Hibernate, Microservices, SOAP, RESTful, Eclipse, Mockito, Jenkins, JMS, JSP, XSLT, XML, Unix Shell Scripts, SQL, RabbitMQ, WebSphere, Maven, Log4j, JUnit, JIRA, GIT, Agile.

**Client: Boeing, Chicago, IL           Sep 2016 - Feb 2021**

**Role: Java Developer**

**Responsibilities**:

* Involved in the complete **SDLC** (software development life cycle) of the application from requirement analysis to testing.
* Additionally, worked on the **BDIP application**, developing a **single source for data ingestion** from multiple airlines and consolidating the data into a unified format for efficient processing using **Java**, **Spring MVC**, **Hibernate**, and **Angular**.
* Developed dynamic and responsive web applications using **Angular**, leveraging its **component-based architecture** and **two-way data binding** to create a seamless and interactive user experience.
* Followed **Agile Methodology** in analyzing, define, and document the application, which will support functional and business requirements. Coordinate these efforts with Functional Architects.
* Utilized **Node.js** to run the application on the server with mock JSON data, enabling independent UI development and seamless testing without relying on the backend server.
* Implemented the application using **Spring MVC** Framework and handled the authentication, authorization, and access-control features by using **Spring Security**.
* Utilized **JMeter** to perform **performance testing** and **load testing** on Java-based applications, ensuring optimal performance and scalability by simulating various user loads and analyzing system behavior under stress.
* Configured Spring Container to implement IOC/DI of the **Spring** Beans, and to manage the beans' life circle.
* Used **Hibernate**, object /relational mapping (ORM) solution, technique of mapping data representation from MVC model to Oracle Relational data model with an SQL-based schema.
* Used **Rest Controllers** to replace the existing operations layer, which acts as bridge between business layer and the UI.
* Implemented **Angular AuthGuard** to secure routes and restrict access based on user roles, and optimized application performance by using **lazy loading** to load modules on demand, improving the overall user experience.
* Designed and implemented services for storing, updating, and retrieving user data using **Cassandra**, and facilitated communication with remote servers through **RESTful Web Services**, ensuring efficient and scalable data management.
* Deployed the Web Application in **IBM** WebSphere.
* Involved in installing and configuring **Maven** for application builds and deployment.
* Worked on **Log4J** to validate functionalities.
* Used **JIRA** to assign, track, report and audit the issues in the application.
* Used **GIT** to maintain the version of the files and took the responsibility to do the code merges from branch to trunk and create new branch when new feature implementation starts.

**Environment:** JAVA, J2EE, JSE, JMS, HTML, CSS, Ajax, JSP, JavaScript, AngularJS, NodeJS, Spring, Hibernate, MVC, Restful Web Service, SQL, Mongo DB, IBM Web Sphere, SQL Server, JUnit, Jira tool, Maven, JIRA, IntelliJ, Oracle, OAuth, XML, DOM, Unix Scripting, GIT.

**Education:**

* **Masters in Computer Science**, Southern A & M, Baton Rouge, May 2024.
* **Bachelors in Computer Science**, Jawaharlal Nehru Technological University, Hyderabad, India, May 2016.