**Name:** Karthik KA

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**Professional Summary**

* Around 7+ years of extensive development experience in an environment building n-tier applications for web deployment using Java, **J2EE**, **Spring Framework**, **Spring MVC**, **Spring Boot**, **Hibernate** and **Web Services**.
* Worked extensively with **Waterfall**, RUP, **Agile Extreme Programming** (XP), **SCRUM** methodologies.
* Extensive **SDLC** experience including Requirement Analysis, Preparations of Technical Specifications Document, Design and Coding, Application Implementation, Unit testing and System Testing, Functional and Regression Testing and Production Support.
* Expertise in Core **Java,** Object Oriented Programming Principles like Class, Object, Inheritance, Polymorphism, Abstraction, Encapsulation with strong understanding and working Knowledge of Collections, Multi-Threading, Exception Handling, Data Structures and Polymorphism.
* Developed UI for many web applications using HTML/HTML5, CSS/CSS3, Ajax, JavaScript (ES5 & ES6), JSP, BOOTSTRAP, XML, and JSON
* Familiar working with UI frameworks and libraries like Angular 6+, React, polymer, Django.
* Expertise in developing server-side JavaScript frameworks using Node.JS and jQuery.
* Involved in developing multiple RESTful web-applications using polymer, Angular, FLASK, Spring Boot and Node.js by consuming RESTful web services provided in JSON.
* Expertise in open-source framework Object Relational Mapping (ORM) tools like Hibernate 3.0 and used Hibernate
* Expertise in designing and developing Web-centric applications using **HTML5**, **CSS3**, **Java Applets**, **JavaScript**, **XML**, **XSD**, **JSON**, **AJAX**, **jQuery**, **Bootstrap**, **Angular**, **Node.js**, **React**, Tag Libraries, **Google Web Toolkit** (GWT) and Custom Tags.
* Expertise in implementing **Service Oriented Architecture** **(SOA)** using **Microservices**, **SOAP Webservices** (**JAX-RPC**, **JAX-WS**), **RESTful webservices** **(JAX-RS)**, **Java Message Service (JMS)** and **Apache Kafka**.
* Experience in developing web applications using **JSP**, **Spring Boot**, **Spring MVC** **Frameworks**, **EJB**, **Hibernate**, **Spring Security**, **JBOSS**, **JDBC**, Java Server Pages, **Servlet**, **Web Services**, **JavaScript**, **JavaBeans.**
* Experienced in Development, testing and deployment of enterprise applications on **Windows** & **UNIX** platforms using IDEs such as **Eclipse**, **IntelliJ**, and **NetBeans**.
* Knowledge and hands-on experience with Relational Databases like **Oracle**, **IBM DB2**, **MySQL**, **PostgreSQL** and Non-Relational Database **MongoDB**.
* Designed and developed multiple **J2EE Model 2 MVC** based Web Application using **J2EE** Technologies, Patterns and popular open-source framework **Spring MVC**, **Spring Boot**, **JPA** and **Hibernate**.
* Experience with distributed message brokers **Kafka**, **RabbitMQ**, **ActiveMQ**.
* Excellent skills on various Database tools like **Oracle**, **SQL**, **PL/SQL**, **MySQL** and **NoSQL** Database (**Cassandra**, **MongoDB**)
* Experienced in working with **XML** technologies like **XSL**, **XSD**, **XSLT**, **SAX**, **DTD**, **DOM**, **XML** Schemas, XPath and **JAXB**.
* Experience in using the **Log4j** framework for Logging Java Application.
* Experience with **Spring** **Kafka** and **Zookeeper** apart from **JMS** as messaging service.
* Experience in writing test-cases in Java environment using **JUnit**, **Mockito** and **Power mock**.
* Experience in creating **JSON** scripts for Cloud Formation based on requirements and launch stacks.
* Hands on experience in **Amazon Web Services** (AWS) provisioning and good knowledge on AWS services like **Elastic Compute Cloud (EC2)**, **Simple Storage Service (S3)**, Auto Scaling, **IAM**, **Virtual Private Cloud (VPC)**, **Route53**, **Cloud Watch**, **AWS CLI**, **Cloud Formation**, **Elastic Load Balancers (ELB)**, **RDS**, **SNS** and **EBS**.
* Hands - on experience in **Azure Cloud Services (PaaS & IaaS)**, Storage, Web Apps, Application Insights, Logic Apps, Function Apps, Service Bus, Azure Monitoring, ACR and **SQL Azure**. Used **SQL Azure** extensively for database needs in various applications.
* Deployed **Spring Boot** based **Microservices** using **Docker** **container** and **Amazon EC2** container services and using **AWS admin console** and Strong hands-on experience in development and deployment of cloud native **Spring Boot** based **microservices**.
* Experience on various Java **J2EE** **Design Patterns** like **Singleton**, **Factory** and **Front Controller** design Pattern.
* Good knowledge of in **Unified Modeling Tools (UML)** concepts and extensively worked in designing Use Cases, Class diagrams, Sequence and Object Diagrams using Rational Rose and **Microsoft Visio**.
* Developed Technical Design **(TD)**, Test Plans **(UTP)**, Test Cases **(UTR)**, Test Scripts for **UAT** tests
* Solid Hands-on experience in end-to-end implementation of **CI** and **CD (Continuous Delivery),** **DevOps** processes using **AWS Code Commit,** **AWS Code Deploy**, **AWS Code Pipeline**, **Jenkins**, and **Ansible**
* Good experience maintaining the project in **GitHub**, **Bit bucket**, **SVN** and **CVS** **version control** repositories.
* Good knowledge and hands on **OOPS**, **Spring Framework**, **ORM** Technology (**Hibernate**).
* Good knowledge **Docker**, **Kubernetes**, **IBM cloud**, **API connect**, **GraphQL**, **ReactJS**.
* Experience in **Spring IOC**, **Spring MVC**, **Spring** **JDBC** module.
* Experience in **Spring Boot**, **Rest**, **JPA**.
* Experience in **Microservices** using **Spring cloud**.
* Experience in **Hibernate** for mapping Java classes with database using **Hibernate** **Query language** **(HQL)**.
* Experience in developing provider using **JAX-RS API**.
* Worked on integration of **Spring** with **RESTful** Service.
* Used testing tools like **SOAP UI**, Postman and Advanced Rest Client for testing **Web Services**.
* Excellent analytical, problem solving and interpersonal skills. Ability to learn new concepts fast. Consistent team player with excellent communication skills.

**Technical Skills**

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| --- | --- |
| **Languages** | Java, JavaScript, C, C++,  |
| **J2EE Skills** | Servlets, JSP, JDBC, JNDI, JPA, JAXB, JSTL, J2EE Design Patterns, SOAP, and RESTful Webservices, Spring Boot, Microservices |
| **Web Technologies** | HTML, CSS, JavaScript, Angular 2/4/6/8, React |
| **Frameworks** | JSF, Spring Framework, Hibernate, |
| **Design Patterns** | MVC, DAO Pattern, Singleton Pattern, Front Controller, Factory Pattern |
| **Messaging** | JMS, Apache Camel, ActiveMQ, RabbitMQ, Kafka |
| **Database/Tools** | Oracle, IBM DB2, SQL Server, MySQL, PostgreSQL, NOSQL, MongoDB, Cassandra. |
| **Web/App Server** | Apache Tomcat, WebLogic, IBM Web Sphere, JBoss, Kubernetes |
| **IDE/Tools** | Eclipse, NetBeans, WebLogic Workshop, ANT build script, Maven build, IntelliJ |
| **Version Control** | CVS, TFS, Subversion, GitHub, Clear Case, VSS, MS Visio |

**Professional Experience:**

**Role: Sr. Full Stack Java Developer April 2020 - Till date**

**Client: NCR Corporation, Dallas TX, USA**

**Responsibilities**:

* Used **SCRUM** as a development methodology, participated in Daily **SCRUM** meetings and Sprint Planning, Retrospective and other **Agile** meetings.
* Involved in Requirements gathering, analysis and design and documentation as the application was started from scratch.
* Developed the project using **Spring boot** and making the required configuration to secure the web application using **Spring Security** and **oAuth2**.
* Used **JSP**, **HTML5**, **CSS3**, **Bootstrap**, **JavaScript**, **jQuery**, **ReactJS** and **Angular** to design the front-end components.
* Responsible for creating efficient design for user experience using **Angular** **8**.
* Created several reusable **Typescript** components and directives, used **Angular** **http client module** to consume the restful services.
* Experience with creating custom directives, decorators, and services to interface with both restful and **SOA Services**.
* Implemented business layer using **Core Java**, **Spring Beans** using dependency injection, **Spring annotations**.
* We hosted all our **microservices** in **AWS cloud infrastructure** using **Jenkins CI/CD pipelines**. Supported in creation team's **AWS Infrastructure** while coordinating with network engineering team on building subnets creation and Security group's creation and firewalls rules implantation.
* Data Operations were performed using **Spring** **ORM** wiring with **Hibernate**.
* Designed and developed **JSP** pages using **Spring MVC** **3.0** framework and created **Spring MVC** components like Dispatch **servlets**, configure Request mapping annotation controllers, view resolver components.
* Involved in design and development of server-side layer using **JSP**, **JDBC**, **EJB** and DAO patterns using **IntelliJ IDE**.
* Implemented features like logging, user session validation using **Spring-AOP** **module** and **Spring IOC**.
* Implemented Azure Application Insights to store user activities and error logging.
* Configured **Kafka** to read and write messages from external programs and to handle real time data.
* Used **Spring** **Kafka** **API** calls to process the messages smoothly on **Kafka** **Cluster** setup.
* Mapped the objects with the Database using **Hibernate** **Query Language (HQL)** as the Persistence Framework.
* Followed Acceptance **Test Driven Development (TDD)** with the help of Cucumber framework where we automated the test execution of each feature we developed.
* Created **Request for Proposal (RFP)** microservice to provide **RESTful** **API** utilizing **Spring Boot** with **Spring MVC**.
* Developed **Azure Logic app** to integrate services in the organization. Came up with Test Suites and Test Cases for unit testing and implemented unit testing using **JUnit**.
* Developed the application using **JavaBeans**, **Servlets** and **EJB**’s.
* Performed full **Automation** and prepared Test cases using **Selenium Web Driver**.
* Experience in using performance testing tool **Apache JMeter** for Endurance test, stress test and capacity testing.
* Used **JDBC** **API** **Splunk**, **Spring Boot** with different Data Types and Objects along with **SQL** **statements** and implemented for storing data.
* Used **Log4j** to provide central logging facility, comes under **singleton** design pattern and used to monitor the error logs and used **Git** as version control tool.
* Involved in writing of test cases using **JUnit** and **Mockito** framework and maintained a branch coverage above 85% which is a mandatory requirement.
* Experience with container-based deployments using **Docker**, working with **Docker images**, **Docker Hub** and **Docker-registries** and **Kubernetes**.
* Expertise in writing complex **SQL** **queries** for database tuning and in writing **PL/SQL** concepts. like Stored Procedures and Functions
* Worked with version control management tool **Git** to project check-in, check-out.
* Resolved database inconsistency with better design and efficient **SQL** **queries**.

**Environment**: Java 8, HTML5, Bootstrap, CSS3, JavaScript, AWS, Azure, JDK, J2EE, JMS, Servlets, EJB, JSP, Struts, RESTful web services, Angular Framework, Spring MVC, Spring IOC, Spring DAO, Spring AOP, Spring Boot, Hibernate, IntelliJ IDE, Jenkins, Maven, Kafka, CI/CD pipelines, Kubernetes, Web Services, jQuery, SOAP, Log4j, Oracle DB, MongoDB, PL/SQL, Git, JUnit, JIRA, Angular, Postm

**Role: Full stack Developer February 2019 – March 2020**

**Client:** **State of California, CA, USA**

**Responsibilities**:

* Responsible for all stages of design, development, and deployment of applications. Active role in Test Driven Development (TDD and BDD) apart from Agile Software Development.
* Involved in detail design developing use cases, use case diagrams, class diagrams, sequence diagrams and high-level activity diagrams using UML from the requirements.
* Experience working with testing tools like Jest, Firebug, Protractor, Chrome/safari web inspectors and IE Developer Toolbar.
* Implemented Angular Router to enable navigation from one view to the next as customer performs application tasks.
* Use of Splunk, Spring Boot Hibernate with Spring for creating RESTful Services and API’s
* Responsible for creating and maintaining architecture for Restful API using Spring Boot.
* Used to Setup GitHub and use of Git bash for code submission in GitHub repository.
* Installed and configured Hudson/Jenkins for Automating Deployments and providing an automation solution.
* Developed end to end data processing pipelines that begin with receiving data using distributed messaging systems ****Kafka**.**
* Implemented the Connectivity to the Data Base Server Using JDBC.
* Implemented application-level persistence using Hibernate and Spring.
* Developed web application using JavaScript frameworks like Angular 6, and Node.js.
* Used Web Services (SOAP) for transmission of large blocks of XML data between two interfaces.
* Installing and Configuring Eclipse and Web sphere application Server.
* Deployed the applications on IBM WebSphere Application Server.
* Involved in the process of **data modeling** Cassandra Schema.
* Created Typescript reusable components and services to consume REST API's in Angular 6
* Developed test cases and performed unit test using JUnit Framework.
* Designed and developed the application using Agile methodology and followed TDD, SCRUM.
* Used Jenkins pipelines to drive all micro services builds out to the Docker registry and then deployed to Kubernetes, Created Pods and managed using Kubernetes.
* Involved in writing Java API for Amazon Lambda to manage some of the AWS services.
* Developed the Servlets for processing the data on the server.
* Used Maven to build and generate code analysis reports.
* Analyzed the Maven dependency management in the base code to annotate the dependencies on to Spring Boot application into Gradle for Microservices.
* Implemented API controllers (SOAP and REST) and Web Services client classes to interact with downstream systems.
* Deployed and Monitored Microservices Using Pivotal Cloud Foundry, also Managed Domains and Routes with the Cloud Foundry.
* Used AWS Beanstalk for deploying and scaling web applications and services developed with Java.
* Used SAX and DOM parser to parse the XML documents and XSLT for transformations.
* Analyzed business requirements and documented them into business stories in JIRA.
* Based on Service Oriented Architecture (SOA) using AXIS web service framework.
* Used Java Messaging Services (JMS) for reliable and asynchronous exchange of important information.
* Used GitHub/Jira/Confluence tool for daily routines.
* Supported our legacy portal which was implemented with Spring MVC architecture.
* Guided testing team and helped them in develop cucumber-based automation test cases (ATDD) framework which we used to test our RESTful services.
* Involved in bug fixing during the System testing, Joint System testing and User acceptance testing.
* Deployed the developed web components on Apache Tomcat Webserver.
* Involving in Building the modules in LINUX environment with ANT script
* Writing and Optimizing MySQL Queries and connect queries to story.

Environment: Java, Spring framework, Angular framework, Node.js, Typescript, HTML5, CSS3, Bootstrap, Eclipse IDE, Angular, Kubernetes, Apache CXF, Git, GitHub, Scrum, AJAX, Web Services Standards (SOAP and WSDL), IBM WebSphere, UML, EJB, JMS, JSP, XML, JSTL, Servlet, Maven, XML, JIRA, Web 2.0, SOA, Apache Tomcat, Docker, AWS, Microservices, Spring Boot, DB2, CRUD, PL/ SQL, JDBC, Jenkins, Mockito, JUnit, Ant, MongoDB, Kafka, Cassandra, LINUX, PHP

**Role: Junior Java Developer September 2017-November 2018**

**Client: Columbus global India, Hyderabad, India**

**Responsibilities:**

* Involved in designing and developing the **RDBMS** to build up the required databases to provide the client with desired application functionality.
* **Spring** **ORM** with **Hibernate** was used to develop entities, **DAO** and services to manage the databases. Furthermore, the project's models and repositories were implemented using **Spring** **Annotations**.
* Created and implemented **RESTful** **Web Services** using **Spring** to retrieve relevant data from the central repository to render into the **UI**.
* Implemented **Spring Boot** **Microservices** to process the messages into the **Kafka cluster** setup. **Lambda functions** in Java for AWS using **ELASTIC COMPUTE CLOUD (EC2)**, Designer, invoking functions, **Log4j** (for logging functions), **AWS lambda** **java core**, **java events**, **handlers Cloud** **Splunk**, **Spring Boot**, and **Cloud Watch** for monitoring lambda functions.
* Implementing **Spring MVC** **XML** based configurations and the Controllers to map the user requests and return the **Model View objects (MVC)**.
* Used **Spring** **config server** for centralized configuration and **Splunk** for centralized logging. Used Concourse and **Jenkins** for **Microservices** deployment
* **JavaScript** was used to design the **User Interface** and **dynamic web pages**. Using **Angular** helped render and provide a more user-friendly experience.
* Designed web page components using **JavaScript/Typescript** and **Angular** for incorporate nested views in Single Page Application using routes and achieving access grant using Route Guards.
* **HTML**, **CSS**, **JavaScript**, **MongoDB** and **Angular** were used for frontend to develop the database and web system for rendering facile course management for the users.
* Utilized **Kubernetes** and **Docker** for the runtime environment of the **CI/CD system** to build, test deploy.
* Used **Angular** as a framework to create a **Single Page Application (SPA)** to bind data to speciﬁc views and synchronize data with the server.
* Used **Mongoose** to access the documents from the **Node.JS** web server and build data models for the entities in the database schema.
* Used **Git** as Version Control System to manage and synchronize the code efficiently with the team.
* Used **JIRA** for bug management/fixes, and **JUnit** provided unit testing.
* Tested objects, classes and logic using **JUnit**.

**Environment:** Java, JavaScript, Docker, Kubernetes, Spring, Spring Boot, RESTful Web Services, Hibernate, Node.js, Mongoose, MongoDB, MySQL, AWS, Angular, Microservices, Typescript, Bootstrap, Kafka.

**Role: Java Developer December 2016 – August 2017**

**Client: HI Caliber IT Solutions, India**

**Responsibilities:**

* Prepared High-Level requirement documents upon gathering requirements and discussed with the technical team regarding the feasibility of the requirements.
* Involved in writing SQL Queries, Stored Procedures and Triggers.
* Used Bootstrap, Node.js for effective design of Web pages.
* Working on the Spring Framework like Spring IOC and Spring DAO.
* Design and implementation of front-end User Interface development using HTML, DOM, CSS, JSP, JSTL, JavaScript and jQuery and AJAX.
* Implemented to reprocess the failure messages in Kafka using offset id.
* Implemented REST Microservices using Spring Boot. Generated Metrics with method level granularity and Persistence using Spring AOP.
* Use Java Collection classes, interfaces, Spring Boot JAX-RS API in backend for building custom REST API’s.
* Involved in development of test environment on Docker containers and configuring the Docker containers using Kubernetes.
* Implemented the MVC architecture using Apache Struts Framework.
* Configuration and deployment of application on to JBOSS application server.
* Developed various EJB's to handle business logic.
* Worked on JDBC to select and update the data from the MySQL database
* Designed and implemented database structure in MySQL Server
* Written and consumed webservices using SOAP based.
* Used SOAP UI for testing SOAP based webservices.
* Performed Java web application development using J2EE and Netbeans.
* Involved in creation of automation framework using Selenium and testing.
* Involved in Requirement analysis, design and Implementation applying the Waterfall model.
* Wrote Servlets programming and JSP scripting for the communication between web browser and server.
* Working with the JIRA tool for Quality Center bug tracking.
* Developed Swing for user interaction and data presentation.
* Deployed the complete Web applications in Tomcat Application server.
* Install and configure a LINUX server to publish applications and Data base.
* Automated daily task by writing PL/I and UNIX shell scripts.
* Involved in packaging, deployment and upgrade of different modules of SAS on JBOSS App server.
* Developed JavaScript and Action Script, for Client-Side validations.

Environment: Java, JEE, Spring, Spring Boot, JSF, EJB, jQuery, MySQL, SQL Server, DB2, SOAP, WSDL, NetBeans, JBOSS, ClearCase, Selenium, Kafka, Waterfall Model, UML, JSP, Servlet, ANT, XML, JIRA

**Role: Software EngineerJune 2015 – October 2016Client:CMS Info Tech*, Hyderabad, India***

**Responsibilities:**

* Wrote documentation to translate User Stories to technical design of the project.
* Implemented design patterns such as **Model View Controller (MVC)**, **Static Factory**, **Singletons**, and **Facade**.
* Created **JavaBeans** and set up **Spring** **ORM** configuration using **XML**.
* Closely worked with **Kafka** **Admin** team to set up **Kafka** **cluster** setup on Production environment.
* Added **Spring Security module** for login and logout sessions on website and use **BCrypt algorithm** for saving passwords and having Authentication and Authorization.
* Used **spring config server** for centralized configuration and **Splunk** for centralized logging.
* Created drop rate scripts for NPC’s within the quest module.
* Create subroutines for logic of events.
* Added more reward and activity modules after user input for further enhancements.
* Real time streaming the data using **Spark** with **Kafka.**
* Used annotations throughout **MVC design** while building.
* Use **OAuth2/Spring** **Splunk**, **Spring Boot** **Security** for both backend and front end for authentication and authorization clients.
* Various **JavaBean**, **Java Liferay**, Components for implementing business logic.
* Use Performance tuning using **JVM** and use of **garbage collector** to allow application to run efficiently.
* Used **Spring Security** for securing **RESTful** **API**’s and used multiple annotations for object descriptions.
* Create **REST API** using **Spring MVC** and create backend routes using **GET POST PUT** methods for **HTTP** requests for **RESTful** **API**.
* Involved in loading and storing objects using **Hibernate** for events and dynamic passing data.

**Environments**: Java, JavaScript, HTML, Bootstrap, Spring Security, Spring ORM, Splunk, Spring Boot, Hibernate, Spring Data JPA, Apache Spark, Apache Kafka, RESTful Web Services, Oracle, PCF SQL Database, algorithms, Java Liferay, JavaScript.

**Role: System Administrator January 2014 - April 2015
Client: NSG India, Hyderabad, India**

**Responsibilities**

* Development of registration module using Struts framework.
* Presentation layer development using JSP, JavaScript, HTML for registration Page.
* Used JSP, HTML and CSS for developing views.
* The client-side validations were done using Struts Validator framework.
* Developed controllers using Servlets.
* Configuring tiles-def.xml, Web.XML and struts-config.xml according to the strut framework.
* For accessing data from database wrote SQL statements in Java programs using JDBC connectivity.
* Involved in developing Technical & Functional Documentation for the project.
* Developed several stored procedures, functions, cursors, and triggers using PL/SQL for application database and business reporting.
* Implemented Logging mechanism using LOG4j.
* Development Testing and integration testing of various modules.
* Deployment of the application-using ANT.

**Environment:** JAVA/JSP, DAO Design pattern, WebSphere Process Server, Struts1.1, HTML, XML, Oracle 10g, Log4j, Ant, Eclipse.

**Education:** Master’s, In Information Technology, Concordia University St Paul, Minneapolis, MN

 Bachelor’s, In Computer Science, JNTUK, Andhra Pradesh, India