**DEEPA .A**

[deepa.javatech@gmail.com](mailto:deepa.javatech@gmail.com)

+1 913-601-8960

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| **PROFESSIONAL SUMMARY** |

* IT Professional with 6+ years of experience of full stack development in all phases of Software Development Life Cycles(**SDLC**) like **AGILE/Scrum** and **Waterfall** methodologies. Participated in Analysis, Design, Development, Implementation, Testing and Deployment of various web based, enterprise business applications using **JAVA/J2EE** technologies.
* Developed and deployed **Microservices** based applications using **Spring Boot** along with **Spring REST**.
* Implemented exception handling in **Java Spring boot** for **REST API** by making use of **Exception Handler** and Controller Advice **annotations**.
* Well experienced in implementing **SOA** (**Service Oriented Architecture**) using **Spring REST** to create **REST** resources that include several components like **Jersey Framework, spring Boot, JAX-RS** and used **WADL** for documenting **REST API’S**.
* Worked on **SOAP** protocol using **JAX WS** and integrated **Apache CXF, AXIS-2 for WS-Remote Messaging, WS -Security, WS- Policy** and other specifications and automated documentation using **Swagger** and **WSDL**.
* Experienced in configuring and deploying applications on different servers such as **Apache Tomcat, Web logic, IBM WebSphere, JBoss**.
* Expertise to interact with **relational databases** using **ORM** frameworks like **Hibernate, Spring Data JPA, iBATIS, MyBatis, Java Persistence API (JPA), Hibernate’s** second level cache **- Ehcache**.
* Have good knowledge on different **databases** like **PostgreSQL, MySQL, DB2, Oracle 13c/11g, Microsoft SQL Server, NoSQL DB (Mongo DB and Cassandra, Couch DB, Dynamo DB)** and good experience in writing **stored procedures, functions** and **triggers, views** using **PL/SQL** scripts and embedded **DDL** and **DML** statements in **PL/SQL** blocks in **JDBC, ODBC** and in **WebLogic server**
* Experience in Developing User Interface (**UI**) Rich Web Applications using Front End/User Interface (UI) Technologies like **HTML4/5, XHTML, DHTML, CSS2/3(using SASS and LESS), Type Script, Bootstrap** by managing all facets and pipelines of application.
* Expertise in implementing the features of **ES6** like **arrows, modules, block scoping, promises and enhanced object literals.**
* Experienced in working with **MVVM** design flow using client-side **JavaScript** framework **Angular 2.x/4. X/5.0 with NGRX**
* Expertise in using **shadow DOM** which is a feature of **Angular 5** to encapsulate visual behavior.
* Good knowledge in providing support for passing messages between publishers and subscribers using **observables** as a part of **Angular 5**.
* Experience with features of **Angular 4** like **NG Modules** which configure the injector and the compiler and help organize related things together.
* Proficient with **Angular JS, Backbone JS, Knockout JS** for customize front end app development and to achieve **MVC** design flow.
* Well experienced in view rendering using **jQuery, React JS, Handlebar JS** for templating and implementing **React JS** with **Redux** and **Flux** patterns to attain **MVC** functionality.
* Well experienced in developing **Dynamic Single Page Application (SPA)** using **MEAN (MongoDB Express Angular Node)** full stack development tool Kit
* Hands-on Experience in developing server-side **JavaScript** frameworks using **Node JS (Hapi JS, Express JS)** to build **event driven, non-blocking I/O model** web applications.
* Experience in installing dependencies using Package Managers like **NPM, BOWER** and running automated task using build tools like **Gulp, Grunt** and **webpack** for **bundling, minification, loading images, configuration.**
* Experience in using ES2015-to-ES5 transpiler functionality using **Babel, TS- transpiler.**
* Experience on UI testing with **Karma, Jasmine, Protractor** for **Angular JS** and **Mocha, Jest**, **Chai** for **React.**
* Unit tested web services using **Junit, Mockito, EasyMock**, **Spock, Test NG** and hence achieved the goals of **Test-Driven Development (TDD)**
* Experience in working with **JMeter** for performance testing and **LoadRunner** for load testing on microservices.
* Well experienced in using various **AWS** (Amazon Web Services) **Iaas** (Infrastructure as a Service) Components like **EC2** for running applications on virtual machines, **S3** and **Glacier** for storing and long term back up of data, **EBS** for persistent block level storage, **Elastic Cache,** **Dynamo DB, SQS** for message queueing, **RDS** for setting relational database in cloud and **Lambda** for server less program functions, **EKS** for application monitoring, **AWS Cloudwatch** for log monitoring.
* Good Knowledge and Experience on implementing **Spring Cloud- Netflix OSS** Stack for micro Services deployment ,**ZUUL** for **API Gateway** for **routing**, **Hystrix** (**Circuit Breaker**) for **latency** and fault tolerance and **Eureka** for service registration.
* Experience in applying **JMS (Java Messaging Service)** for reliable information exchange between **Client** and **Server** using **Apache Kafka, RabbitMQ** and **IBM MQ.**
* Good knowledge of **Splunk** architecture and various components. Expert in **Splunk dashboard Development, Configuration** and **Administration** and used **Kibana** to view using **Elastic search (ELK)**
* Experience in setting up a CI/CD pipeline by integrating **Jenkins** with **AWS CodeBuild** and **AWS CodeDeploy**
* Implemented security functionality **OAuth 2.0, Spring security, SSL and siteminder (SSO)**, secure authentication with **LDAP OAuth2** for generating tokens in the application using **Spring Security, JWT** for producing **tokens.**
* Well experienced with build tools like **Gradle, Maven** and **ANT.**
* Knowledge on **Docker** components like **Docker Engine, Hub, Machine,** **Compose** and **Docker Registry.**
* Hands on experience in managing **Docker Container** using **Kubernetes** with zero downtime deployment.
* Good practical experience with **Java-based** logging utility i.e. **log4J** and **slf4j**
* Extensive knowledge on the **Spring Modules** like **Spring IOC** and **Dependency Injection, Spring MVC, Spring Batch, Spring Web Flow, Spring Security** (Authentication and Authorization), **Spring AOP** for **Code Modularity** and **Spring Boot**
* Extensive experience with latest **JAVA8** features like **Functional Interfaces, Stream, Time, Collection APIs, Transaction Management, Exception Handling, Lambda Expressions** and **Core Java** concepts.
* Experience in developing Web Applications with various Open Source frameworks: **JSF 1.2, Spring Framework 2.0/3.0/4.0, Web Flow, Jakarta Struts Framework 1.1/1.2/2.0, Struts Validation and Tiles Frameworks.**
* Have knowledge on Application monitoring tools like **New Relic**, **Dynatrace and Splunk along with Kafka or Splunk agent.**
* Strong Knowledge on automated java-based integration testing and behavioral testing of the applications using **Selenium** and **Cucumber** respectively

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| **EDUCATION** |

* B.E(Hons) Electrical and Electronics Engineering, BITS Pilani , India.

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| **PROJECTS** |

**Ford Motor Company, Dearborn, MI (October 2019– PRESENT)**

**Role: Full Stack Java Developer**

**Description**: **Ford IT** is growing as an organization focused on delivering software leveraging extreme Programming and cloud technology. Our team is a growing team dedicated to enhancing existing software related products and creating new and exciting software components that integrate with existing architectures as well as our next generation vehicle systems.

**Responsibilities:**

* Performed **Design, Development, Test** ,**Validation** and **Integration** of the software.
* Worked on **system maintenance** and **enhancement** requests that includes **web** development.
* Used **RxJS 6** of **Angular 6** with the new **methods** and the new **importing style** according to the package structure change in **Angular 6**.
* Implement the web application using **Full Stack** technologies (**Oracle DB, Express, Angular 6, Node.js) along with HTML5, CSS3, JavaScript, jQuery, Bootstrap and other web technologies**.
* Migrated the code from **Angular 5** to **Angular 6** by utilizing new commands provided by **angular CLI 6** like **ng update, ng add** and implemented the multiple project support with **angular.json** provided in **Angular 6**.
* Utilized the **Lazy loading** feature provided by Angular to load the components only when needed. Also compiled the **Angular 6** app using **ahead of time compilation** to reduce the size of files that loads into the browser for **better performance**.
* Developed a **custom logging microservice** using the technologies **Angular 6,** **Node js** and **Oracle DB** which can be integrated into the existing application modules to log all the actions performed on the files like **Approve, Cancel, Export** etc.
* Implemented Angular Authentication using the **HTTP interceptors** and **HTTP Client** **.**
* Managed the Angular state using **RxJS** powered **state management** solution **NGRX**. Implemented ngRX **store** and **reducers**, **actions**, **effects** for maintaining state and communicating with backend services.
* Unit testing is done using the **jasmine** for the code written using the **Angular** framework and using **Express** as middleware..
* Implemented **ES6 promises** and **ES7 Async Await** for various database and third party API calls.
* Utilized **node-jsonwebtoken** module to digitally **sign** and **verify** the tokens for **API authentication** mechanism.
* Designed and developed an **ETL(Extraction Transformation and Loading)** solution using the **request** module and the **Oauth 2.0** protocol in **node JS**.
* Utilized job scheduler **Appworx** to schedule calls to **third party API** and oracle database **function, stored procedure** calls.
* Implemented the automatic documentation for the API using the **Swagger** an **OpenAPI** specification.
* Utilized **Oracledb** module in **node js** to connect, make database **CRUD** operations, execute oracle database package **functions** and **stored procedures**.
* Followed TDD with the help of **cucumber** testing framework to test the **APIs** developed in **nodejs** using **Mocha.**
* Worked with **ZUUL gateway** to handle the **Authentication and Authorization** for the microservices before the requests reaches APIs.
* Utilized the **static content delivery** and **caching** features of **ZUUL API gateway**.
* **Service discovery** is implemented using the **Netflix Eureka**.
* Segregated the application into multiple **independently deployable** and **maintainable** modules.
* Used **Continuous delivery / Continuous Integration (CD/CI)** tool **Jenkins** to build the project upon passing the **test cases** written using **cucumber**.
* Deployed the application from **jenkins** to **NGINX** running on **EC2** instance using the **SSH protocol** and **rsync** utility.
* Used **GITLAB** for Version Control to maintain **merge request** policy with different branch for different environments
* Created instances for **AWS EC2** and created **AWS S3** buckets to monitor the access to the hosted files.
* Utilized the **NGINX server** feature **reverse proxying** to direct certain requests to the module running on a different **EC2** instance.
* Developed the functionalities under **Agile Methodology, JIRA processes** and used **JIRA** for **task assignment**, **bug tracking** and **fixture**.
* Used **Splunk** for automated logging of error messages. Created alerting and custom dashboard capabilities in **Splunk**.

**Environment:** HTML5, CSS3, Angular 6, NodeJS, ExpressJS, JWT, OAuth 2.0, JIRA, GITLAB, Jenkins, Jasmine, Mocha, Cucumber, AWS EC2, AWS S3, Splunk, Swagger API, Agile Methodology, Oracle, PL/SQL, ETL, ZUUL Gateway.

**MetLife Inc., Cary, NC (January 2019 – October 2019)**

**Role: Full Stack Java Developer**

**Description**: **MetLife**, through its subsidiaries and affiliates, is one of the world’s leading financial services companies, providing insurance, annuities, employee benefits and asset management to help its individual and institutional customers navigate their changing world. The project that I worked on, involves analyzing local business needs, country IT systems and market needs and present proposals and develop high level technical solutions.

**Responsibilities:**

* Created UI specification documents by interacting with business users and design documentation and data modelling for the entire project.
* Built User Interface using **state store, middleware, action creator, reducer and container** in **React JS/Redux** **.**
* Developed user interface by using **React JS, Redux for SPA** development and implemented client-side Interface using **React JS.**
* Performed several **Axios service calls** like **GET** and **POST** to make **REST service** calls.
* Built cloud **Microservices** and implemented backend using **Spring Boot.**
* Written calls using **Fetch API** for fetching **JSON** data.
* Implemented platform modules through **Java microservices** and **Node.js services** by employing **Hapi.js**, as well as **front-end React JS.**
* Used complete annotation driven approach to develop the application using **Spring Boot** and was involved in setting up the Spring bean profiling.
* Worked with **Spring Boot** for automatic configuration and starter for Maven configuration and performed metrics and externalized configuration.
* Developed RESTFUL web services using **Spring Boot** and **Apache CXF** framework.
* Worked with **Microservice** architecture using **Spring Boot** to modularized code and implemented Rest API’s using **Spring Rest** and integrated **Swagger API** for documentation.
* Worked with **JAVA8** features like **Functional Interfaces, Stream API for Bulk Data Operations, Time API, Transaction Management, Concurrency API, Collection API**, **Calendar API**.
* Deployed our Application on **Pivotal Cloud Foundry (PCF)** which is used to reduce the development overhead by providing a ready to use platform.
* Deployed and Monitored Micro Services Using **Spring Cloud Foundry** Managed Domains and Routes with the Spring Cloud Service Registry.
* Implemented **Spring Cloud Config Server** for externalized configuration for microservice applications.
* Implemented **blue-green deployment** process in **PCF** to achieve zero downtime when deploying new versions of applications.
* Implemented **Spring Netflix ZUUL** API gateway and **Eureka service registry** for **reverse proxy** and **Dynamic service** discovery of API's.
* Used **Apache Kafka** in cluster as messaging system between the APIs and microservices and worked on **Splunk** search processing language **(SPL)** queries, reports, dashboard and logging using Log4J.
* Implemented **Spring Circuit breaker** pattern, integrated **Hystrix** dashboard to monitor **Springmicroservices.**
* Implemented **NoSQL** database like **Cassandra** to store key values, for data analytics and also as a Database for this project.
* Worked on**Docker hub**, creating **Docker images** and handling multiple images primarily for middleware installations and domain configurations.
* Used **Kubernetes** to create new cluster and container management tool.
* Project code build is done using **MAVEN** tool and used **Continuous delivery / Continuous Integration (CD/CI)** tools **Docker** and **Jenkins** to deploy this application.
* Implemented a metrics collection mechanism for the server by utilizing **Apache Kafka** to stream server-side events.
* Implemented **Redis** cache for in-memory data clusters and retrieving data through Redis cache to speed up the REST services response time.
* Worked with **Web pack** for bundling application source code in convenient chunks and for loading that code from a server into a browser
* Adopted **JMS** API to setup mail notification upon the success or failure when the backend processes are completed and to send mail notifications regarding any system related problems.
* Used **Splunk** to create charts for the **log data** and **analyze log data** to know customer expectations.
* Authenticating Users and to provide the security to **RESTful** web services using **OAUTH2.0**
* Tested **REACT** code on client side with **CHAI** testing framework and **MOCHA** as test runner.

**Environment:** React JS, Redux, Hapi JS, Node JS, Web pack, ECMA6, Mocha and Chai, Spring Boot, Hystrix, Netflix ZUUL, Micro services architecture, Docker, Jenkins, Cassandra DB, OAUTH, Apache Kafka, Splunk, PCF, Swagger, Webpack, Maven.

**State Street Corporation, Boston, MA (September 2017-January 2019)**

**Role**: **Java Full Stack Developer**

**Description: State Street** is one of the largest custodian banks, asset managers and asset intelligence companies in the world. My project drives the company's digital transformation and expanding business capabilities using industry best practices and advanced technologies such as cloud, artificial intelligence and robotics process automation.

**Responsibilities:**

* Designed User Interface and enhanced websites for clients to increase online presence and sales by using some of the latest technologies, including **JavaScript, CSS3, HTML, jQuery UI,** **Handlebar JS, Angular JS**.
* Wrote application level code to perform client-side validation using **jQuery and JavaScript**.
* Implemented Angular two-way binding and the search functionality for Internal Application using **Angular JS**.
* Extensively used **http** service to make **AJAX** calls and consume **JSON** responses across numerous services.
* Involved in implementing the complete Application in the in-build **SOA Architecture** with **Angular js**.
* Created a demo website running on **Node.js**, using the **Express framework, Jade, Angular js** for front end **MVC/templating**.
* Configured **Express JS** node HTTP framework to set up middle-wares to respond to **HTTP** requests and used its front-end tooling like web packs, starter packs, boiler plates efficiently.
* Enhanced the existing application utilizing **Angular JS**, created HTML navigation menu that is role based wherein menu items change dynamically based on the values derived from the database in the form of **XML**.
* Implemented **REST** web service calls using **JSON, JAXRS** formats provided to be integrated on the front end
* Created both xml and java configuration files for setting up **Apache CXF** as **JAX-RS** runtime, **Spring Data** and **Spring JDBC template** technologies.
* Used **ORM** tool **Hibernate** along with **Spring** framework to deal with database operations.
* Developed **POJO** classes and written **Hibernate query language (HQL)** queries.
* Implemented logging using **log4j** and **Spring AOP and** used **Junit** for testing.
* Used **Spring JTA** Transaction manager to remove the dependencies on the container.
* Implemented business layer of the application using **Spring AOP, Spring IOC**.
* Used **Hibernate** mappings, relationships between tables and entity classes to access and update information in the Oracle database.
* Used **Hibernate's EHcache** to store/get data based on object key. Used **@Cacheable** and **@Cacheput** to manage Ehcache storage.
* Involved in bug fixing during the System testing, Joint System testing and User acceptance testing using **JIRA**, deploying the applications and binding third party services like App Dynamics on **Pivotal Cloud Foundry (PCF).**
* Documented the **RESTAPI's** using **Swagger** API for briefing the services involved in the application.
* Implemented the function to send and receive **AMQP** messages on **RabbitMQ** synchronously and asynchronously, and send **JMS message** on the edge device
* Developed test driven development code using **JUnit and Mockito** framework.
* Used **Karma** Test runner and **Jasmine** Testing frameworks for frontend.

**Environment:** Spring MVC, Spring Batch, Spring Security, Spring REST, Spring IOC, Hibernate, Angular JS, AJAX, HTML, CSS, JSON, Junit, Mockito, Selenium, Cucumber, MySQL 5.6, AWS, RabbitMQ, SOA architecture

**Cloud Digital Media, Hyderabad, India (November 2016 - August 2017)**

**Role: Full Stack Java Developer**

**Description: Cloud digital media** is in hosting business and has been hosting thousands of websites successfully. I worked on a Project which aims to help the employees of Cloud Digital Media to refer candidates for open positions in the organization.

**Responsibilities:**

* Used **Backbone JS** to utilize its rendering functions and create controllers to handle events triggered by clients and send request to server.
* Created responsive UI modules using **Backbone JS** with hard coded dependency of **Underscore JS** in combination with **Handlebar JS** for templating.
* Defined and developed the application’s presentation layer using **HTML, CSS**, and **jQuery**. Used **jQuery** for creating different menus and dialog boxes and used different **jQuery** plugins for calendar, calculator, and printing options.
* Implemented various cross-project functionalities using **Spring AOP** and implemented transaction management using **Spring AOP** and used **Spring Aspects** for implementing logging functionalities.
* Implemented Web service calls using **SOAP** (**JAX-WS** frameworks) to provide significant pre-build extensibility in the form of the WS\* standards.
* Created **WSDL** (Web Services Description Language) document for client application web services. Developed **SOAP** web services (JAX-WS) for sending and getting data from different applications **WSDL** generation and exposed the service at server-side over the Internet
* Implemented persistence layer with **iBATIS ORM**.
* Extensively involved in writing code by using **Java Collections** like **LinkedList, Queues, HashSet and etc.,** Worked on the **Java Collections** API for handling the data objects between the business layers and the front end.
* Involved in writing **Multi-Threading** Synchronization concepts in Java.
* Developed back-end **PL/SQL packages, UNIX shell scripts** for data migration and batch processing.
* Created and customized **UNIX** shell scripts for automating regular maintenance and batch jobs.
* Used **ANT** for automated build and deployment on **IBM WebSphere**.

**Environment:** HTML, CSS, Backbone JS, Handlebar JS, jQuery, IBM WebSphere, Spring AOP, Java Collections, Multi-Threading, UNIX, iBATIS, SOAP

**EiS Technologies, Hyderabad (May 2014 – October 2016)**

**Role: Java Developer**

**Description: Enterprise Integration Technology solutions** provides an enterprise managed services as part of its product service, the team built an inhouse reporting product which provides managed services suite of sales/presales and delivery organization challenges and identify/capture opportunities in the enterprise domains by providing industry expertise/experience.

**Responsibilities:**

* Developed application based on **Monolithic Architecture** using **Model View Controller** (MVC) concepts.
* Implemented forms and action classes for the application using **EJB** and **Struts Framework.**
* Developed **EJB** deployment descriptor using **XML** and used Jakarta XML Binding **(JAXB)** components for transferring the objects between the application and the database.
* Functionalities like auto completion of forms and user validation are implemented using **jQuery.**
* Used **Multithreading** concept to post data from files to tables involving transformation of file from one format to another.
* Developed dynamic web pages using **JSP** and used **Struts Validation** framework to perform input validation.
* Configured **Struts-config.xml**, **Tiles-def.xml** and various properties files provided by Struts Framework for the implementation module.
* Developed and implemented the **MVC** Architectural pattern using **STRUTS 2.x** framework.
* Implemented POJO based action by **STRUTS** and also utilized various Tag Support given by the **STRUTS 2.x**.
* Implemented **interceptor** which is invoked during preprocessing and post processing of a request in **STRUTS 2.x.**
* Implemented **OGNL (Object Graph Navigation Language) of STRUTS 2.x** to simplify the accessibility of data stored in the **ActionContext**.
* Build **PL\SQL functions**, **stored procedures, views** and configured **Oracle Database 10g** with **JDBC** data source with connection pooling enabled.
* Performance tuning of JVM heap size, **garbage collections**, java stack and Native thread & production performance.
* Used **Subversion (SVN**) for maintaining current and historical versions of source code, web pages and documentation.
* Used **ClearCase** for **source code maintenance**.
* Developed **Ant scripts** and developed builds using **Apache ANT.**
* Used **Log4J** to capture the log that includes runtime exceptions.

**Environment:** Java/J2EE, EJB, Servlets, JSP, HTML, CSS, JavaScript, JBoss, Subversion (SVN), Oracle, SQL Developer, JDBC, Struts 2.0 framework.