## **Lava Kumar Balasubramanyam**

**(515) 518-0817**

## [**lavakumarbalasubramanyam@gmail.com**](mailto:lavakumarbalasubramanyam@gmail.com)

**Senior Full Stack Java Developer**

**PROFESSIONAL SUMMARY:**

* **Sr. Full Stack Java Developer**with over **8+ years** of experience in **Analysis**, **Design**, **Development**, **Testing** and **Implementation ofEnterpriseClient/Server** and **DistributedApplications** across the entire **Software Development Life Cycle** using **JavaandJ2EETechnologies**.
* Expertise on advanced software development methodologies such as **Agile/Scrum**, **Waterfall**, **Test Driven Development(TTD)**, **Incremental and Iteration** methodology.
* Expertise in UI Design and Developmentusing **Angular 2/4, AngularJS, Backbone JS, Ember JS, Knockout JS, Ext JS HTML/ HTML5, CSS/CSS3 (SASS, LESS), JavaScript (ES5 & ES6),Google Web Toolkit (GWT),Bootstrap, XML AJAX,JSON, Tag Libraries, Custom Tags, JSF, Prime-Faces and Rich-Faces framework**that follows W3C Web standards and successfully managing all facets of application development.
* Experience in **Use Cases**, **Sequence Diagrams** and **Class Diagrams** using **UML** and **J2EE Design Patterns** like **Model-View-Controller(MVC), Singleton, Abstract Factory, Session Façade, DAO, DTO, Service Locator** and **Business Delegate** in developing multi-tier distributed web applications.
* Expertise in **J2EE Architecture** using **Java**, **JDBC**, **EJB 3.2**, **Servlets 3.x/4.x**, **JMS, JSP**, **Hibernate 3.2/4.x**, **Struts**, **Maven**, **Spring**, **Web services (Axis2.0**, **JAX WS 2.0**, **JAX RS)** and **Rule Engines(Drools 4.1, Easy Rules, RuleBook)**.
* Experience in Messaging services like (JMS) MQ's **Rabbit MQ**, **IBM MQ** and **Active MQ**.
* Experience in **Spring Security Framework** for User Access Management and involved **LDAP** configuration for authentication, authorization & Implementing **Spring Cloud**-REST call using **Netflix Feign Client**.
* Strong experience in **Spring Framework** modules such as **Spring MVC, IOC, AOP, JDBC, JTA, IO, Spring Dashboard, Spring Boot, Spring Microservices, Spring REST, Spring Eureka, Spring Ribbon, Spring Netflix, Spring Zuul Proxy.**
* Experience in creating rules using Business Rules Engines: **Drools**, **ILOG**, and experienced with Imaging/Document Storage tool: **Case 360** and **IBM DB2 Content Manager**.
* Developed **SOA** and **J2EE Web Services** based on **SOAP, WSDL, UDDI, JAX-WS, JAXB, JAX-RPC.**
* Expertise in **back-end procedure development** using **Sybase, PostgreSQL**, **Oracle 9ito11g**&**MySQL**.
* Strong experience with **MongoDB** development (reports, schema design, map reduce functions) and migrations from **SQL** relational databases to **NoSQL** databases like **MongoDB**, **Cassandra** and **CouchDB**.
* Good knowledge in employing database caching strategies using **Redis, MongoDB Elastic search**.
* Hands on experience in installing, configuring, and using **Hadoop ecosystem components** like **Hadoop Map Reduce**, **HDFS**, **HBase**, **Hive**, **Sqoop**, **Falcon**, **Storm**, **Kafka**, **Zookeeper**.
* Expertise in developing applications using Type safe technologies like **Scala**, **Akka** model, **Play** framework.
* Developed **CI/CD** system with **Jenkins** on **Kubernetes** container environment utilizing **Kubernetes**.
* Excellent experience in unit testing using **Karma**, **Jasmine**, **Automated Testing** using **Junit/TestNG**, **Selenium** (IDE/Webdriver), **Integration Testing** using **Continuum**, **Selenium**, **Hudson**, **Jenkins** and **ApacheCamel**.
* Deployed the Application into **Docker** container and made easily accessible at runtime using **Pivotal Cloud Foundry** and other cloud services like **AWS**, **Netflix Eureka**, **Spring Hystrix** as fallback method**, Spring Ribbon** for load balancing and a broker service to maintain status using **Spring Kafka** and **Zookeeper**.
* Experienced in configuration and deployment on **Application Servers** such as **IBM WebSphere**, **Oracle WebLogic**, **Red Hat JBoss** and **Apache Tomcat**.
* Hands on experience with **build tools** like **Ant**, **Maven**, **Gradle** and **logging tools** like **Log4J** and **Splunk**.

**TECHNICAL SKILL:**

|  |  |
| --- | --- |
| **Java/J2EE Technologies** | Servlets, JSP, JSTL, JDBC, JMS, JNDI, RMI, EJB, JFC/Swing, AWT, Applets, Multi-threading, Java Networking. |
| **Programming Languages** | Java JDK 1.4/1.5/1.6/1.7/1.8, C++, C, SQL, PL/SQL, Python, Scala, Golang. |
| **Application/Web Servers:** | Oracle/BEA, WebLogic 8.1/9.1/10.3, IBM WebSphere 5.1/6.0/6.1/7.0, JBoss, Tomcat 5.0.28/6.0, Bug tracking, Jenkins, Cucumber. |
| **IDEs** | Eclipse, Spring STS, IntelliJ, WebStorm, NetBeans. |
| **Web technologies** | HTML5, CSS3, XHTML, JavaScript(+ES6), TypeScript, Ajax, jQuery, AngularJS, Angular 2, Angular 4, ReactJS, NodeJS, Socket.io, Express JS, JSON, Swagger UI, Bootstrap, Google Web Toolkit (GWT),Backbone JS, Ember JS, Knockout JS. |
| **AWS Skills** | EC2, S3, RDS, EBS, IAM, AMI, ELB, CLI, SNS, RDS, VPN, NAT, GIT, DNS, Route53, DBA, Dynamo DB. |
| **Web Services** | JAX-WS, JAX-RPC, JAX-RS, SOAP, REST, SOAP UI, Microservices. |
| **Methodologies** | Agile, Scrum, RUP, TDD, OOAD, SDLC, Waterfall model. |
| **Message Brokers** | Kafka, RabbitMQ, ActiveMQ, TIBCO, IBMMQ. |
| **Testing technologies/tools** | JUnit, JMeter, Protractor, Mockito, Karma, Jasmine. |
| **Database** | Oracle 8i/9i/10g/11G, DB2, SQL Server 2005/2008, MySQL, PostgreSQL, Sybase, MongoDB, Cassandra. |
| **Big Data Tools** | Hadoop, Spark, MapReduce, HDFS, HBase, Zookeeper, Hive, Sqoop, Cassandra, Flume, Couchbase, MongoDB, Neo4J, Redis, MLlib. |
| **Version Control** | CVS, SVN, Git, Stash, Bitbucket. |
| **Build Tools** | ANT, Maven, Gradle. |
| **Spring Tools** | Spring MVC, IOC, AOP, JDBC, JTA, IO, Spring Boot, Spring Micro services, Spring REST, Spring Eureka, Spring Hateos, Spring Cloud, Swagger UI, Sleuth, and Spring Zuul, Feign Client. |

**PROFESSIONAL EXPERIENCE:**

**Client:Cummins, Columbus, IN Feb 2016 – Till Date**

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

**Description: TheDeal manager is an interface for all the Agricultural products offers for its enterprise clients. This application is used to sell products and also to keep every record of it. Deal Manager is responsible for establishing a platform for enrollment of clients, selling products, billing and supporting. It will also serve as a repository of previous sales, clients, products, and requests.**

**Responsibilities:**

* Involved End to End Design, Development and Testing of Streamlets module. Actively involved in Analysis, Design, Development, System Testing and User Acceptance Testing. Followed **Agile** methodology in the **Scrum** model.
* Worked on**Angular JS** and **Node JS** to structure **JavaScript** code in an MVC model (**Model-View-Controller**). Used **Angular JS**, **D3JS**, **HTML 5**, **CSS3**and**AJAX**to build a responsive **single-page application**.
* Extensively used**Java 8** features like **lambdaexpressions** for communicating between business layer and database, **streamAPI** for Bulk Data Operations on Collections using both streams and parallel streams.
* Developed **Session Beans** for fetching the data and updating information.
* **Eclipse RCP** used as Java IDE tool for creating **POJO, Servlets and Data Access Objects.**
* Implementing or exposing the Microservices architecture with **Spring Boot** based Microservices interacting through a combination of **RESTful** and **Apache Kafka** message brokers.
* Worked extensively on **Camel-based integration** middle-ware solution for Provisioning Services by design and the Implementation of business logic and data processing routes using **Apache Camel**.
* Implemented fail safe and **circuit breaker** patterns in **Spring BootMicroservice** applications using **Hystrix**, configured **Swagger-UI** to registered Microservice with **Eureka server** and monitored service health check from **Spring Boot** admin console and **Spring Ribbon** for load balancing.
* Implemented pre-authentication and data base security using **Spring Security** and securing application access and **Spring Batch** for scheduling and maintenance of batch jobs.
* Processed flat file data to the various databases using Elixir Repertoire **ETL** Tool.
* Creating **UNIX** wrapper scripts for scheduling the **ETL** codes through Control M Scheduler jobs.
* Used **Sparkstreaming** with **Scala** to consume real-time data from the **Kafka** cluster and run arbitrations.
* Implemented **SpringORM** with **Hibernate** taking advantage of features like **Annotation** metadata, **Autowiring**, and **Collections** to implement **DAO** layer with Hibernate **Session Factory**, **HQL**, and **SQL**.
* Extensively used **Hibernate** concepts such as **Lazy loading**, **Dirty checking**, **Locking**, and **Transactions**.
* Created/managed **Mongo DB**/**NoSQL** collections. Developed Serverside automation using **Node.js** scripting and connecting different types of SQL and NoSQL databases.
* Experience with building **Docker Images** and running them on **Docker container**.
* Developed fact classes and rules file in JBoss **Drools rule engine** to customize EPA emails.
* Experience with **DevOps** methodologies, implementing **CI/CD Pipelines** using tool sets like **GIT**, **Jenkins** and **Chef**. Setup the continuous Integration (CI) process and continuous deployment (CD) jobs in **Jenkins** brew master instance, which reduces the time for the deployment of **micro services**.
* Designed, configured and deployed **Amazon Web Services** for large number of applications utilizing the **AWS API gateway** and ELK (**Elastic search**, **Kibana**, **Logstash**) stack focusing on high availability and fault tolerance that is produced by **Apache Spark cluster**.
* Worked with several testing frameworks such as **JUnit**, **EasyMock**, **Mockito** and **PowerMock**.
* Created **Test automation** framework using **Cucumber** and **Selenium** web driver.
* Used **Git** for version control and **JIRA** for bug tracking, project management and **Maven** as build tool.

**Environment: Java 8, Spring Boot, MVC, Spring Eureka, Hibernate, MongoDB, NodeJS, AJAX, XML, Golang, Oracle 11g, Docker, NGinx, JQuery, IBM RAD, Kubernetes, Multi-threading, Agile, Design Patterns, Git, Apache Maven 2.5.1, Oracle WebLogic, HTML 5, XSLT, RESTful Services.**

**Client:Blue Cross Blue Shield (BCBS) ,Chicago,IL July 2014 – Jan 2016**

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

**Description: This Project mainly deals with delayed check payments. In this applicationwe provided two functionalities to business users. One is 'upload functionality' and the other is 'search' functionality. In the upload functionality, users have an option to upload data corresponding to delayed checks. In the search functionality users can search for detailed claims data based on the check number along with other fields like Bank account number, Payee name, tax id, NPI and date range.**

**Responsibilities:**

* Understand the complete flow and found various gaps in current system Designed the new flow for faster creation of reports and posting. Removed complex logics and built more stable and simple code logics.
* Prepared **User stories** corresponding to the features taken from **Backlog**
* Comprehensive experience in using **Node.js** and **Spring Boot** implementing RESTful web service.
* Hosted and consumed **RESTful** Web services using **JAX-RS** API with spring Boot.
* Developed Micro services using RESTful web services to provide all the **CRUD** capabilities.
* Used **Executor Service** framework to implement **multithreading** in programming to improve overall performance.
* Responsible for implementing frontend features, APIs, internal tools and processes in **Node.js** centered stack.
* Extensively used **npm** tools like **Gulp, Grunt, Web pack**
* Built micro services for the delivery of Purchase Order module using **Spring cloud**.
* Applied significant knowledge of industry trends and developments to improve service to our clients.
* Worked on the Common **UI** layout for defining the Header, Footer and Menu using **JSF Facelets**.
* Used **Multithreading** extensively to improve the performance of the application.
* Worked on **Camel-based integration** middle-ware solution for Provisioning Services by design and Implementation of business logic and data processing routes using **Apache Camel**.
* Involved in capturing the business requirements, design, development and testing of the application.
* Designed a responsive website using **Bootstrap** grid system to layout contents that fit different devices including mobile, tablet and desktop.
* Used **Cassandra** NoSQL DB to store the data for few modules of the application.
* Built Web pages that are more user-interactive using **AJAX, JQuery**.
* Developed a cross-device/browser web application for location sharing utilizing **AngularJS, JavaScript API**.
* Integrated the Java code (API) in **JSP** pages and responsible for setting up **AngularJS** framework for UI development. Developed html views with **HTML5, CSS3, bootstrap and AngularJS**.
* Using **AngularJS** created Responsive Web Design and did data manipulations to display data in company standard format in UI.
* Deployed **Docker** contained Spring **REST** services in to **AWS EC2** container service using **AWS** admin console and used lambda to run applications in **AWS** console.
* Usage of **Scala** as a template engine to the front-end part of code.
* Worked on **AngularJS**, used its two-way data binding to achieve the feedback functionality from the user.
* Configured **Swagger** for auto-generated documentation for all REST API calls.
* Experienced in build, deploy multi module applications using **Maven, ANT** and **CI** servers like **Jenkins**.

**Environment: JAVA/J2EE, HTML, JSON, XHTML, JS, AJAX, JQUERY, DOJO, CSS3, JSP, NodeJS, AngularJS, ReactJS, JSF,Bootstrap, XML, XSLT, XPATH, MULE ESB, AWS, WebSphere, SOAP, REST, Spring Framework, Spring Boot(Microservices), JMS, Maven, Drools 5, Eclipse, Jenkins, JUnit, MongoDB, Mockito, Star Team, TDD, Spring MVC, EMMA, JIRA, Spring framework DI, AOP, Batch, Hibernate, Cassandra, Docker, Ant, Coherence, Rally, Apache Camel.**

**Client:Deutsche Bank, Chicago, IL  Sep 2013 – June 2014**

**Role: Sr. Java/J2EE Developer**

**Description:Deutsche Bank is one of the secured financial institutions that serves huge domain of customers. Auto Billing System is a web application built on Spring MVC framework. The scope of the project involves the design and development of a Web based application to provide online billing services. The application provides various functionalities such as creation of account, payment of bills, enroll in automatic recurring bill payment and Review Payments.**

**Responsibilities:**

* Developed the **J2EE** application based on the **Service Oriented Architecture.**
* Used **Spring** Framework for **dependency injection, integration** of **Hibernate** using **Spring ORM support,** development of **REST**ful **web services** to give **JSON** output**.**
* Used **Spring MVC** front controller to handle requests from dispatcher servlet to handle incoming requests.
* Configured **Spring MVC** from scratch using **XML configurations, namespace handling, Spring security** set up and giving access to resource, wrote code to transform **XML** documents using **JAXB Marshalling** and **Unmarshalling** using Spring Injections.
* Developed the applications using **SPRING** framework including **Spring Core, Spring WS, Spring MVC,** and **Spring Integrations design pattern**
* Used **Hibernate** in **persistence layer**, **hibernate mappings using Annotations, HQL, Criteria** and **Queries.**
* Involved in Design and Development **of RESTful API.**
* Worked with **SOAP UI**, **JAX-WS** to create Web Services and consuming the existing services.
* **REST web services** are created - Spring with **Jackson Mappers** exchange data using **JSON data structure.**
* Used **SVN** for source Version Control, resolving code conflicts and merging code base**.**
* Deployed the application in **Web Logic Application Server.**
* Developed Microservices to provide Rest **API's** utilizing **Spring MVC**
* Strong experience in writing **PL/SQL queries** and performance tuning.
* Developed **Unix Shell scripts** to automate repetitive database processes.
* Used **Maven** for dependency management, build applications and deploy to the containers, application servers and create versions in the repository.
* Used **JUnit** for unit testing of the application and **log4j** for logging.

**Environment: Core Java, Java 1.6, Spring, Hibernate, SVN, Apache, Eclipse 3.3, JNDI, Log4j, JUnit, XML, XSD, AngularJS, Node.js, JQuery, HTML 5, bootstrap, JavaScript, Web Logic Application Server, Oracle, Windows XP, REST API, NetBeans, UNIX.**

**Client: Walgreens,**[**New Orleans, Louisiana**](https://en.wikipedia.org/wiki/New_Orleans,_Louisiana)**May 2012 – August 2013**

**Role: Java/J2EE Developer**

**Description: This project is about Inventory management system which ensures that to maintain as little stock as possible. It deals with warehouses, products, multi-national production contracts etc. It can track sales and available inventory, communicate with suppliers in near real-time and receive and incorporate other data, such as seasonal demand.**

**Responsibilities:**

* Involved in analysis, design and development phases of Software Development Life Cycle (SDLC).
* Worked on **Agile** Methodology for building End to End Project management.
* Developed UI modules using **HTML, JSP, jQuery, Bootstrap, JavaScript and CSS**.
* Designed and developed application based on **Spring MVC**. Used **Spring IOC** for dependency injection and **Spring AOP** for cross cutting concerns like logging, security and transaction management.
* Developed reusable, interoperable Web service modules based on SOA architecture using **SOAP &RESTFUL**.
* Developed Application using **Spring MVC Framework** by implementing Controller, Service classes. Implemented spring framework **Bean Factory**&application Context for bean initialization and configurations.
* Utilized **Hibernate** as Object Relational Mapping (ORM) Tool for the backend data persistence.
* Developed and maintained the data layer using Hibernate and used **Spring ORM** to integrate with Hibernate.
* Implemented B2B webservices using **JAX-RPC and JAX-WS**.
* Developed application database objects Stored Procedures using **SQL and PL/SQL** to interact with database.
* Wrote**SQL** queries, stored procedures and enhanced performance by running explain plans.
* Created and injected spring services, spring controllers and **DAOs** to achieve dependency injection and to wire objects of business classes. Designed and Implemented **REST** web services using **JAX-RS**, **Spring REST.**
* Utilized **Jenkins** for Continuous Integration builds.
* Performed code reviews and used Checkstyle, **FindBugs**, PMD, and PIT for code quality.
* Designed, built, and deployed a multitude applications utilizing almost all the **AWS stack** (**Including EC2** focusing on high-availability, fault tolerance, and auto-scaling).
* Involved in **WebSphere** server configurations, Connection Pooling, MQ Series Queues set up for messaging.
* Used XML for the data exchange and used **SAX and DOM parser** to extract and read required information.
* Used **Log4j** to capture log that includes runtime exception and logging are helpful in debugging the issues.
* Developed the Hibernate mapping files and involved in writing **JUnit** test cases and suits using **Eclipse** IDE.
* Configured and deployed the application in **WebLogic Application Server**.

**Environment: J2EE, Java, Servlets 3.1, JSP, JDBC, EJB, JQuery, HTML5, JSTL, XML, Spring 4.0, Hibernate 4.1.9, Oracle 11g, MQ, Web Services, JUnit, Log4j, SOAP, XML, JavaScript, UML, AWS EC2, JAX-WS, JAX-RPC, JUnit 4.0, REST, WSDL, XML 1.1, IBM Websphere, Weblogic Sever 11g, Maven, Jenkins, Trac, SVN, AJAX, jQuery, RSA, UML, HP Service Manager.**

**Client:Allied Insurance, Westerville, OH   Oct 2010 – Apr 2012**

**Role: Java/J2EE Developer**

**Description: This project enables the dealers to provide service warranty to the end customers. The end customers can buy the warranty from one dealer and can utilize the warranty service at any other dealer. IT system for this acts as the centralized system. It aids the IT systems of the dealers to generate the invoice to the end customers for service repairs. It makes payments to the dealers for the service repairs. The dealer warranty system works in conjunction with the Billing and Invoice system.**

**Responsibilities:**

* Involved in requirement gathering phase of SDLC with Business Analyst and worked

With **Agile-Scrum methodology**. Involved in design of **Class Diagrams**, **Sequence Diagrams**

and Event Diagrams as part of Documentation.

* Developed UI using **AngularJS**, **HTML5**, **CSS3**, **jQuery, Bootstrap**, **JavaScript**, **Ajax**.
* Used **AJAX** and **JavaScript** to handle **asynchronous request**, **CSS** to handle look and feel of the application.
* Developed the presentation layer and **Spring MVC framework.**
* Involved in exposing, consuming and packaging Web services using **Spring-CXF framework**.
* Developed **JSON** code to pass the data from **JSP** to **Servlet**.
* **XML scripts** were developed to configure **Spring** and **Hibernate**.
* **Business-logic controller** framework development utilizing spring framework and **dependency injection**, catering to both standard server-side and **AJAX client** requests.
* Persistence layer design and implementation using **Hibernate ORM framework**, **annotated lazy-loading** / **fetching** strategy implementation.
* Developed applications using Web services, Developed the application using **Spring MVC**, involved in configuring and deploying the application using **IBM Web Sphere**.
* Involved in developing **JUnit test** cases using **Easy Mock** and DB units for unit and integration units.
* Used **Maven** for building and deploying the application.

**Environment: Java 1.5, J2EE 1.2, JDBC API, XML, JavaScript, HTML, CSS, AJAX, SQL, Servlet 3.0, JSP 2.0, Spring 2.5, Hibernate /JPA, JUnit, Maven 2.0, Apache Tomcat.**

**Client:Pilog India Pvt Ltd, India  June 2009 – Sep 2010**

**Role: Software Engineer**

**Description: Facial Recognition Software offers two kinds of matching services to users. This whole application accepts facial images as input in JPG format and submits them to the core matching services through sockets in parallel to enable distributed computing. This application matches the input with the whole database and the second one compares two facial images using Eigen face algorithm to calculate the distance between the facial features. This application also retrieves all matching results at later point in future and updates verified results in the database.**

**Responsibilities:**

* **Involved in Analysis and Design of the Project, which is based on MVC (Model-View-Controller) Architecture and Design Patterns.**
* Optimized the code and database to maximize the performance of**Designed Enterprise Application** usingthe**MVC**(Model View Controller) architecture.
* Created UML **Use Cases**, **Sequence diagrams**, **Class diagrams** and **Page flow diagrams** using **Rational Rose**.
* Designed and developed UI using **HTML**, **JSP** and **Struts** where users have all the items listed for auctions.
* Developed **ANT** scripts for builds and deployments.
* **Developed Controller Servlets, Action and Form objects for process** of interacting with **Oracle** database **and retrieving dynamic data.**
* Day wise transactions were listed in the browser using **Servlets.**
* Code complex **SQL** Join queries for reporting which include hundreds of different variations of reports Responsible for coding **SQL** Statements and **Stored procedures** for back end communication using **JDBC**.
* Wrote **JavaScript** validations on the client side.
* Involved in writing Detail Design Documents with **UML** Specifications.
* Responsible for packaging and deploying components in to the **Tomcat**.
* Used **java IO** to create reports, which were mailed to be mailed to manager every hour.

**Environment: CoreJava, Java Beans, JSP, Jbuilder, JavaScript, Servlets, JDBC, LOG4J, XML, XSLT, HTML, Struts, Tiles, SAX, DOM, Tomcat, UNIX, Oracle.**