Ramya Karnati

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* Over 4+ years of experience in complete life cycle development involving analysis, design, development, deployment, testing, documentation, implementation & maintenance of application software in Web - based environment using J2EE technologies and has knowledge of frameworks like Spring Boot, Spring MVC, Spring Rest, Spring Security along with experience with Cloud Native Development AWS
* Expertise in development and deployment of multi-tiered web-based enterprise applications using Java/J2EE technologies like Servlets, JSP, Hibernate, Spring, JDBC, JSF, Java Beans, and web services (SOAP and REST).
* Strong experience in development of web applications using Java, JSP, J2EE, Servlets, JMS, MVC Framework, Web Services, XML, XSD, JSON.
* Extensive experience in designing professional UI web applications using front-end technologies like HTML5, JavaScript.
* Experienced in MVC (Model View Controller) architecture with Spring’s framework involving various J2EE design patterns.
* Expertise in Restful Web-services using Jersey and Spring REST frameworks with XML and JSON formats
* Expertise in design and development of enterprise level spring-based web applications using Spring REST and Hibernate
* Experience in J2EE design patterns like MVC, Front controller, Factory, Abstract Factory, Singleton, Transfer Object and Data Access Object.
* Expertise in Core Java concepts like OOPS, Data structures and algorithms, Collections, Swing, Event handling, Multithreading, Garbage Collector, Exceptional handling, Generics, I/O and Java. Lang Package.
* Experience in Developing and Deploying Enterprise Java Beans on Application Servers like WebLogic, Tomcat and JBoss.
* Experienced in using build tools such as ANT, Maven and Gradle.
* Extensively used RESTFUL and SOAP web services in designing the web applications.
* Experience in Log4J to capture the log that includes runtime exceptions, monitored error logs, and fixed the problems.
* Experience in database design and development using SQL, Stored Procedures, Functions and Triggers.
* Experienced in different software development methodologies like Waterfall Model and Agile Methodology.
* Worked with CVS, Git and Subversion SVN for Revision Control Systems and defects Tracking System like Jira and used confluence for managing the project related notes and docs.
* Ability to learn and adapt quickly to the emerging new technologies and paradigms.
* Excellent written and verbal communication skills, Analytical, Problem Solving skills, strict attention to detail and ability to work independently, work within a team environment.

**TECHNICAL SKILLS:**

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| **Languages** | Java 8, SQL |
| **Java/J2EE Technologies**  | Core Java, JSP, Servlets, JMS, Java Beans, Java Multithreading, Generics and Collections, EJB, Design Patterns |
| **Frameworks** | Spring, Hibernate, Spring Boot.  |
| **Web Technologies** | HTML5, XML, DOM, JSON, CSS3, JavaScript, jQuery |
| **Web Services** | SOAP, REST |
| **Big Data Technologies** | Spark SQL, Hadoop, AWS S3, AWS EMR |
| **App servers** | Jboss, Apache Tomcat, Web Logic |
| **Databases/Tools** | SQL |
| **Methodologies**  | Agile, Waterfall  |
| **Operating Systems** | Windows, Linux, UNIX  |

## RESEARCH ASSISTANT| UNIversity of michigan dearborn| SEP 2019 – PRESENT

* Involved in Requirement Gathering, Analysis, Design and Development of the project
* Used XML based configuration to wire the dependency components together and to define the classes.
* Depending on the business requirements, Class and Sequence diagrams were developed.
* Implemented authentication and encryption algorithms for securing Sample Value Messages between IED in substation automation system and used open-source library libiec61850 and tools such as C, Unix, Wireshark to secure the application.
* Written Unix and Linux scripts to execute the jobs and to append the resultant authentication tag to data packet.

## software developer | tata consultancy services| May 2016 – dec 2018

* Involved in SDLC requirements gathering, analysis, design, development, and testing of application using Agile Methodology.
* Translated business requirements into software process using tools as Java, JDBC, SQL, Servlets, HTML, CSS, JavaScript, XML, Spring.
* Involved in RDBMS database design using SQL, Stored Procedures, Functions, Triggers, prepared Statements.
* Designed and developed Web Services (SOAP, WSDL). Created and compiled XML Schema to generate Java Bean classes using Apache.
* Used Spring Boot for building application with Spring initializers and bootstrapping the build configuration.
* Used Spring Framework for developing and implementing the web application following the MVC.
* Used Java Mail API to send email notifications upon the success or failure when the backend processes are completed and to send mail notifications regarding any system related problems.
* Migrated on premises applications to cloud infrastructure using Scala, Spark, Amazon EMR, Java and automated the cluster creation and destruction daily using Ansible and developed Unix scripts to transfer files from EMR to Linux using SSH.
* Developed test cases by JUnit and used Log 4j for logging and Apache tomcat for application deployment.

**EDUCATION**

Master of science, Computer and Information Science, University of Michigan Dearborn, Michigan

**PROJECT**

**Implementation of Page Rank on Twitter data**

**Technology**: MongoDB, MapReduce, AWS EMR, AWS S3, JAVA

The main aim of the project is to implement the PageRank algorithm for getting the most important web page. PageRank is implemented using Java and the documents from twitter memes are loaded into the database. Dead ends in the data are removed and used s3cmd and EMR ruby to check file size and for automatic submission of job.

# THESIS and PUBLICATION

Security of Process Bus in Digital Substation, Implementation of Secure Sampled Value (SeSV) Messages in Substation Automation System ([IEEE Transactions on Power Delivery](https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=61), Status: Published)