

## SURIYA PRAKHASH DEENADAYALAN

### LEAD DEVELOPER

[suriyaprakash@gmail.com](mailto:suriyaprakash@gmail.com)

<https://www.linkedin.com/in/suriya-prakash-deenadayalan-7b042839/>

+1 (312) 684 3912

### PERSONAL SUMMARY

- **TEN** years of progressive experience as a **Lead/Senior software developer** with the strong background and working **knowledge** in all the **phases** of **software development life cycle** with **strong analytical, programming skills** and having **solid functional experience** in the **development, implementation** and the **maintenance** of complex systems.
- **Designed, developed, and implemented software solutions** for high visibility, high impact projects; solved **technical problems** in a growing **business environment**.
- Strong hands on experience in **designing, developing and supporting** highly available **microservices, security frameworks, creating archetypes, distributed applications, messaging systems, web services and multithreaded applications** with technologies such as core and advanced **Java technologies, J2EE, JSP, Servlets, REST, SOAP, Spring boot, Cloud Netflix, Security, Data, Stream, Hibernate, BPMN activiti, LDAP, Kerberos, Oauth2, JDBC, JWT, XML parsers, NAS SMB, TCP, SSL, OWASP, Maven, Gradle, Velocity templates, Junit mockito, Cucumber-Gherkin, Selenium, SONAR, Checkmarx, Corbertura** and working knowledge of web front end technologies like **Angular, React-redux, javaScript, node and jquery**
- Experience handling large volume data from real time events and working experience with messaging systems, both on **pub-sub** model and **producer consumer** model. **Kafka, Rabbit MQ(AMQP), HiveMQ (MQTT), JMS** as such.
- Hands on experience in creating configurable pipeline using **Gitlab CI, Jenkins**, working experience with **Bamboo, Commander**
- Experience with **Cloud (PCF, AWS Beanstalk), Containers/Orchestration (Docker, Openshift), Web and Application servers (Apache, Tomcat, JBoss, Weblogic and IBM Web Sphere 5.x)**, implemented **Elastic Logstash Kibana, Splunk** and minimal experience in using middleware tools like **mulesoft** with **CloudHub** deployments. Good experience in structural database like writing **SQL queries**, creating **PL/SQL stored procedures, functions** and **non-structured database** like **Mongo DB**
- Expertise in **Object Oriented Design (OOD) & Analysis (OOA)** based on **Unified Modeling Language (UML) architecture**. Experience in **developing Class, Sequence, flow diagrams** using **Smart Draw UML** and **Star UML**.
- Strong hands-on experience in implementing Design patterns like **MVC, Singleton, Template, Proxy, Lazy loading, Data Access Object, DTO, Service Façade, Delegate and Factory**. Real time experience with **Configuration Management tools** like **GIT, Accurev and SVN**.
- Experience with **debugging, load testing, security testing** and **analyzing the performance** with hands on experience in using tools like **APM, Dynatrace, JMeter, JConsole**, optimizing the code and minimalistic knowledge of penetration testing tool like **Burp tool suite, NMap, Metasploit** framework.
- Strong knowledge in **Scrum, Kanban, AGILE & Waterfall** methodology of **software development** with experience in **pair programming** and **TDD** along with limited working experience with **BDD**.
- Good leadership, interpersonal skills, ability to work independently and as a team player, result oriented, hard working with a **quest and zeal** to learn new **technologies** and has shown it in the past by learning **Clojure, Ruby on rails** and **Chef** on demand to meet the requirement and always interested in undertaking challenging tasks.

## EDUCATION

**B.Tech in Information Technology**, Mepco Schlenk Engineering College

## TECHNICAL SKILLS

|                               |   |
|-------------------------------|---|
| <b>HARDWARE/PLATFORM</b>      | Mac, Linux, Windows   |
| <b>LANGUAGES</b>              | Java, Javascript, Typescript, Python  |
| <b>DATABASE</b>               | MS SQL, MongoDB, My Sql, HiveSql  |
| <b>TECHNOLOGIES</b>           | Microservices – Eureka, Zuul, Config server, Hystrix, Admin, Ribbon<br>Complex distributed services - RESTful, SOAP, TCP, Servlet, Frontend - JSP, Angular, React-redux, Javascript, JQuery, Messaging - Kafka, AMQP, JMS, MQTT, NAS SMB, HTML, XML, XSLT, Oauth2, Kerberos, SAML, Policy management, Activiti BPMN |
| <b>FRAMEWORKS/LIBS</b>        | Spring Boot, Cloud, Security, Data, Hibernate, Log4j, Oauth2, Junit, Cucumber, JAXB, SAX, DOM, JMS, Velocity  |
| <b>TOOLS</b>                  | IntelliJ, Spring Tool Suite, Pycharm, Eclipse, Postman, SOAPUI, Burp, Kibana, NMap, Nightcode, Visual studio code, Sublime text, MQTT FX, jconsole, Jmeter, Dynatrace, APM, Jira, Rally, Confluence   |
| <b>VERSION CONTROL SYSTEM</b> | GIT, Bitbucket, Accurev, SVN  |
| <b>BUILD/CI TOOLS</b>         | Maven, Gradle, Bamboo, Gitlab CI, Jenkins, Electric commander   |
| <b>WEB/APP SERVERS</b>        | Apache, Tomcat, JBoss, Websphere  |
| <b>CLOUD/CONTAINERS</b>       | PCF, AWS Beanstalk, Docker, OpenShift   |
| <b>DOMAIN</b>                 | Healthcare, Banking, Automobile   |

## AWARDS AND RECOGNITION

- 3 times **employee of the month** award in Cognizant India
- **Best innovation award 2015 – Healthcare domain** for **Content parser**
- **Best project healthcare small 2015** (team award) for **Care Management Application**
- **Gold Award 2019 – Banking & Financial Services** for process/productivity at **Northern Trust**

## PROFESSIONAL EXPERIENCE

**SOFTWARE ENGINEER II**  
**2021 – Present**

**M&T BANK**  
**BUFFALO**

### Common Libraries

**Mar '21 - Present**

Java libraries assists application teams to bootstrap quickly without adding any code and just by customizing the required functionality using properties to get started with the business functionality.

### Responsibility

- Design, develop and maintain **mtb-common** for common enabling/disabling common features like **Auditing**, **LDAP** connectors, **SMTP** email, **Jasypt** encryption/decryption, **Utilities** including date formatters, id generators.
- Design, develop and maintain **mtb-basic-security** for enabling/disabling security features of web security including configuration level support for **CORS**, **CSRF**, **Session Management**, **Ignores**,

**Authorization using Basic LDAP/OAuth.**

- Design, develop and maintain **mtb-activiti-api** as a wrapper on top of the **BPMN Activiti Engine** by centralizing the ability for executing actions like *Creating, Completing Claiming, Releasing* and *Saving* tasks/tickets over just calling APIs, along with our activiti POJOs and JPA data.
- Design, develop and maintain **mtb-workflow-api** which would be the heart of any portal workflow application with the out of the box features involving injecting transitive dependency like *mtb-activiti-api, mtb-basic-security, mtb-common* and *others* by setting their properties to avoid hazel for the application team and allowing them to override if needed, Activiti consumer for communicating with Portal using Kafka on any action, metrics tracking, several other rest endpoints to view the state, history, transaction retry, etc.

**Environment**

**Team size** 4

**Tools** Java 11, Spring Boot, Alfresco Activiti, REST, MS SQL, OAuth2, Spring security, Maven, JIRA, Gitlab CI, IntelliJ IDEA, Postman, GitLab CI

**Model** Agile – Scrum

**Universal Standard Portal**

**Mar '21 – Present**

Portal is web-based solution that hosts different workflow application. It provides set of standard libraries and workflow libraries out of the box that assists application teams to easily and efficiently integrate their application into the Portal.

This also involves setting up new workflow applications including **Generic workflow** for handling unknow generic tickets from Kofax, **Common ticketing** as a generalized ticket demo/kick-starter application with basic features to encourage the business teams using different older workflow systems to port into the portal and to take advantage of the homegrown Portal.

**Responsibility**

- Understand the working of a standard BPMN workflow business requirement from different stakeholders
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks** and **blockers** if any.
- **Prioritize the tasks** based on the **technical ask** and **business urgency**
- **Design and build the components** to accommodate them in the Universal portal.
- Build the **UI components** and the **backend api's** to support them
- Stand **Kafka** cluster in the **Prod** and **DR** environment and maintain them.
- **Build** library components like **workflow-api, activiti-api, security-lib, filestorage-api** to support the portal integration.
- Process the logs to **ELK**
- Write **Javadoc** for the libraries and **functional overview document** in the **Confluence**.
- Build **Gitlab pipeline** to automate the application migration process.
- Help other application teams to seamlessly integrate their **BMPN application** into the **Universal Standard Portal**
- **Support the deployments**, create release notes and maintain them

**Environment**

**Team size** 4

## Background, Qualification and Experience Summary

|              |   |
|--------------|---|
| <b>Tools</b> | Java 11, Spring Boot, Alfresco Activiti, REST, MS SQL, Oauth2, Spring security, Hibernate, Angular 10, Maven, JIRA, Gitlab CI, IntelliJ IDEA, Postman, GitLab CI, Kafka, Linux Servers, ELK |
| <b>Model</b> | Agile - Scrum   |

### Kafka Cluster

**Apr '21-Present**

Build and maintain Kafka brokers for Banking services applications. It involves testing the cluster broker version and setting up security and monitoring features.

#### Responsibility

- Stand up and support 3 zookeepers and 5 brokers.
- Test the maintainability of multiple topics to be used by different teams.
- Setup SASL/PLAIN with LDAP
- Setup MTB flavor of CMAK with basic security to manage the cluster Kafka admins
- Setup MTB flavor of AKHQ with LDAP for the application teams to monitor messages, consumers and topics based on the access.
- Support signoff and verify the deployments.

### ELK Setup

**Apr' 22 – Jul' 22**

Since most of our applications are deployed to on-prem linux servers, we wanted to track everything at single spot. This includes tracking uptime, logs, real time dashboards, etc.

#### Responsibility

- **Determine the standards, naming convention and setup process** for a new onboarding application.
- Setup log back, metrics in the common-lib to be easily plugged into any java spring-boot based application.
- Work with ELK admins to reduce the bottle-neck and prepare an easy standard documentation for **Dashboard creation, Uptime monitoring and alters, Live log streaming, Metric altering.**
- Prepare the GORK filter and share with the elk team for log stash pipeline
- Track and maintain file beat changes in the application servers.
- Work with the ELK team to setup fleet to replace all beats.
- Setup **dashboards** for **Universal Standard Portal**

### Lien Release Research

**Jan '21 – Jan '22**

The new workflow system is to track the process of releasing the lien based on different business conditions moving the task to the respective user queue. This is one of the child applications of the Standard Portal.

#### Responsibility

- **Understand the requirement** form the **Product owner**
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks and blockers** if any.
- Build the **BPMN Activiti workflow diagram** and **the code** to support the backend workflow
- Code the **UI form page** and the **route handlers** to handle the workflow
- **Maintain the code and publish the code** to the respective servers using **Gitlab ci**
- **Support the deployments** create release notes and maintain them

## Environment

**Team size** 6

**Tools** Java 11, Spring Boot, Alfresco Activiti, REST, MS SQL, OAuth2, LDAP, IMAP, SMTP, Spring security, Hibernate, Angular 10, Maven, JIRA, GitLab CI, Kafka, IntelliJ IDEA, Postman, GitLab, Linux Servers, ELK

**Model** Agile - Scrum

## Document Digitization Workflow

Aug '21 – Jan '22

The document digitization as the name suggest is the workflow process the replacing the old school document processing and the task management process. The idea is to integrate the workflow into the Standard Portal.

### Responsibility

- **Understand** the **requirement** form the **Product owner**
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks** and **blockers** if any.
- Build the **BPMN Activiti workflow diagram** and the **code** to support the backend workflow
- Code the **UI form page** and the **route handlers** to handle the workflow
- **Maintain the code** and **publish the code** to the respective servers using **gitlab ci**
- **Support the deployments**, create release notes and maintain them

## Environment

**Team size** 3

**Tools** Java 11, Spring Boot, Alfresco Activiti, REST, MS SQL, LDAP, Spring security, Hibernate, Angular 10, Maven, JIRA, GitLab CI, Kafka, IntelliJ IDEA, Postman, GitLab, Linux Servers, ELK

**Model** Agile - Scrum

**LEAD SOFTWARE DEVELOPER**  
**2019 – 2020**

**BLUESTONE STAFFING**

**FORD MOTOR COMPANY**

**DEARBORN**

## Platform Services

Jun '19 – Dec '20

Proposed, designed architecture and developed individual microservices such as **User Profile Service, Notification Service, APS Service, CPLEX as a service** to be used by other application teams to avoid replication.

Now, have proposed **UI design systems, Dev Kickstarter** as an idea which will be designed and developed in the future sprints.

### Responsibility

- **Understand** the **existing use cases** and **analyze existing application** to remove the common components that can be deployed as an individual container.
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks** and **blockers** if any.
- Propose the solution of running the common components as a **Service** in **PCF**

- **Design, Architect and develop Spring Boot application with TDD(JUnits)** for all the components.
- **Integrate** the application with **Jenkins** for **continuous deployment**.
- **Update** the task status, blocker info or any other attachment relevant to the story in the **rally story board** on daily basis.
- Check for **SONAR** violation and fix them before the release.
- Maintain **password policy** and **application integration support** for all the platform applications which includes maintain the **Github Org, Infrastructure** including **PCF Org** and **Spaces, Jenkins**
- Provide **technical support** to other application teams to implement and to use the **platform microservices**

#### Environment

**Team size** 3 + App teams

**Tools** Java 8, Spring Boot, Spring cloud, Oauth2, Rabbit MQ, MS SQL, IBM Cplex, Spring security, Docker, Hibernate, Gradle, Rally, Jenkins, Visual studio code, GitHub

**Model** Agile - Kanban

#### SLOT

Jul '20 – Dec '20

The larger OEMs (automobile manufactures) have several plants available for stamping sheet-metal plant parts such as doors, hoods and other metal surfaces. They develop **plans** for **what to outsource and where to stamp the parts internally**. This tool uses **mathematical optimization** to **balance logistic, outsourcing and utilization costs**. A user interface which allows stamping experts to adjust the model in real time to reflect **different constraints** and **competing objectives**. This allows the algorithm to efficiently seek alternative solution while the business expert guides for nuances that may be hard to represent mathematically.

#### Responsibility

- Analyze the requirement to build a system to invoke CPLEX service and load the output from in memory
- Build the CPLEX client to make use of the platform CPLEX service
- Modify existing **CPLEX service design** in the platform to **support more requests**
- Handle **zero downtime** artifact delivery
- Build **gateway** and **service discovery** for CPLEX to scale independently
- Optimize the design to reduce the user wait time

#### Environment

**Team size** 5

**Tools** Java 8, Spring Boot, REST, MS SQL, Oauth2, Spring security, JDBC, Gradle, Rally, Jenkins, IBM CPLEX, STS, Postman, GitHub, PCF

**Model** Agile - Scrum

#### Auto allocation

May '20 – Jun '20

Allocating resources to workstations is a **highly complex manual process** and this process involves **allocating the labor, tools, parts** to the **workstations** efficiently. This is to assist the **GSPAS Intelligent systems for manufacturing** to integrate the **optimization model developed** by Scientists. This is a typical **event-based** mechanism to process the data on daily basis and send output back to GSPAS when **finished or errored out**.

### Responsibility

- **Analyze** and **design** the **component** and the **communication protocol, contract** between **systems** and propose the design solution to the management.
- Prepare **API** for **GSPAS** and **Alteryx** based on the **callback** mechanism to trigger the process involves **ADFS** for **GDIA APIs**, **Kerberos** for **Hive**, **Basic auth** for **NAS**, **WSL cookie auth** for **GSPAS**
- Build spring boot microservice to handle APIs and **filter data** from **hive** and post them to NAS based on **SMB** protocol.
- Consume the **Alteryx output** and store them in **MS SQL** and **trigger python model** thru **flask REST API**.
- Store the output back to the **MSSQL** and **invoke the GSPAS callback api** in case of any error or successful completion.

### Environment

**Team size** 3 + External teams

**Tools** Java 8, Spring Boot Rest, Python37, flask, MS SQL, Hive, NAS, SMB, WSL, Kerberos, Oauth2, Spring security, JDBC, Gradle, Rally, Jenkins, Pycharm, STS, Postman, GitHub, PCF

**Model** Agile - Kanban

### Heat treat Migration

Apr '20 –May '20

The existing heat treat is **prioritizing** and **scheduling** application for the Heat treat plant workers to get their schedule based on the transmission demand, parts, furnace availability, machine part compatibility, zone preference and other parameters as such.

The main idea of this project is to integrate this **heat treat** as a module into the **Gear scheduling application** so as to be used across the plants and to be contained, maintained into a single hood.

### Responsibility

- **Understand** the **existing data model** and **design data model** in **MS SQL** based on the model inline with the Gear manufacturing application.
- **Design** and **propose** the **integration components** and **steps, technical resource needed** and **timeline** to the management **without breaking the existing production** and **seamlessly integrate** the **microservices** into the existing **Gear scheduling** application.
- Worked on the building the **CPLEX as a Service integration** for **Heat treat scheduling** involves refactoring the exiting API consume CPLEX solution XML.
- **Integrate** the application with **Jenkins** for **continuous deployment**.
- **Update** the task status, blocker info or any other attachment relevant to the story in the **rally story board** on daily basis.
- Check for **SONAR** violation and fix them before the release

### Environment

**Team size** 6

**Tools** Java 8, Spring Boot, Spring cloud, Oauth2, MS SQL, IBM Cplex, Spring security, Hibernate, Gradle, Rally, Jenkins, Visual studio code, Postman, GitHub, PCF

**Model** Agile - Kanban

## Gear Scheduling

Aug '19 – Jan '20

A **web application** intended to resolve the time-consuming manual scheduling process. This application helps users to **configure parts, machine and operations, generate priorities** and to **schedule** the parts to their respective machines. This application is designed to be compatible with multiple departments and plants.

### Responsibility

- **Gather requirement** from the **product owner, understand** and **analyze** the existing monolith application for a department for a plant.
- Propose **architectural design solution** and discuss with the team for feedback
- **Design and create, db and tables.**
- **Design and built project skeleton** for the **gear mfg** and **hard machining** spring boot java microservice base code, configure Oauth 2, config server and access.
- **Design and build dynamic, scalable module** and **component skeleton** for the front-end angular base code.
- **Develop** the **navigation** for hard machining module pages.
- Integrated with Jenkins for continuous deployment and publish it to PCF
- Read **MQTT** messages from **AEP deviceWISE** and persist in the table for daily schedule optimization thru **CPLEX as a Service microservice**
- Build **Generate Schedule** by handling using the CPLEX wrapper and CPLEX platform API
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks** and **blockers** if any.

### Environment

**Team size** 6 + External teams

**Tools** Java 8, Spring Boot, Spring cloud, Oauth 2, MS SQL, Hive MQ, Rabbit MQ, Spring integration, Spring security, Angular 6, Hibernate, Gradle, Rally, Jenkins, Visual studio code, GitHub, PCF

**Model** Agile - Scrum

## Jenkins Enablement

Jun '19 – Aug '19

Created configurable common **descriptive pipeline** for the application teams to build, run tests and sonar, publish, deploy the artifacts to **PCF** data centers, trigger emails and integrate with **slack**. These configurations are later **embedded to** the java and angular project creation **archetypes** for the application teams.

### Responsibility

- **Understand** the **multiple use cases** and scenario to come up with a template pattern.
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks** and **blockers** if any.
- **Install Jenkins** in **OpenShift**
- **Build script** and **test** the script using a templated dummy project
- **Analyze the configuration** required for the application teams and integrate it with the scripts.
- Publish and maintain the scripts.
- Provide **technical support** to other application teams to implement and to use **Jenkins** in their application.



## Environment

**Team size** 1 + App teams  
**Tools** Jenkins, Visual Studio Code, GitHub, Gradle, PCF, Nexus  
**Model** Agile - Kanban

**ASSOCIATE, PROJECTS**  
**2012 - 2019**

**COGNIZANT TECHNOLOGY SOLUTIONS**

**NORTHERN TRUST**

**CHICAGO**

## Client Access Management

**Jun '18 – Jun '19**

A tool to manage **client access** based on the partly existing tool. This provides a way for the client to **access** their **sponsors**, **manage** them which involves adding new user, manage existing users access, bulk access, alerts and backend data reports. This is a UI based project with **react** application along with required **java microservices** in **PCF**.

## Responsibility

- Work with the business team to understand **the business requirement** and eventually **gather technical requirements**
- Participate in **daily scrum calls** with information about the **completed tasks, in progress tasks** and **blockers** if any.
- **Architect, design** and **develop** java based microservices based on the requirements
- **Pair program** and **build modules** which are open for development status in the **JIRA** board
- Write test cases and develop the business logic based on **test driven development** and push the code changes on daily basis.
- Make sure the **bamboo build** is successful once the **sonar** and **checkmark** violation has been fixed
- **Migrate** the application from System to **UAT** for testing.
- Track the JIRA testing bugs and provide appropriate solutions.
- Involve in **integration, stress, load** and **performance testing** with the tester and prepare documentations
- Analyze the artifact and create a change request to migrate the application to PROD.

## Environment

**Team size** 4  
**Tools** Java 8, Spring Boot, Spring cloud, Oracle DB, Spring Boot admin, Spring security, OAuth2, 2way SSL, React, Redux, Saga, Selenium, Hibernate, Bamboo, JIRA, Visual studio code, Bitbucket, Nexus  
**Model** Agile – Kanban

## Application Security

**Apr '17 – May '18**

Develop and maintain a **security framework** that handles the security risks listed by **OWASP** and the client's information security team to enable and provide security features to the different application based on **web services, web applications** and **microservices**. The framework has to support **OAuth2, 2-way SSL** and handle other vulnerabilities. This also involves in creating a **web client** similar to postman which helps to access **APIs** that application team develops over 2-way SSL. This also involves in handling bank's **login functionality** that is based on both the **PING** and **Legacy** services.

### Responsibility

- Work with the team to understand the architecture of security framework to be implemented on the applications that the application team develops which is based on **Weblogic, Docker** and **PCF Cloud** environments
- **Develop security features** and **addons** working with **Ping Fed, Ping Access, OES** service team and other application teams to provide a generic solution for the vulnerability or issue
- Work on **Continuous Integration** setup, releasing the framework jar into the nexus repository and announce the release to other application teams
- **Document** the **framework features, archetypes** and **implementation guide** for peer developers along with the **user guide manual** for application teams to use the framework
- **Support** and **help** application teams to implement the security framework onto their applications
- **Analyze** and **fix bugs** reported by testing team and application teams

### Environment

**Team size** 6

**Tools** Java 8 (supporting applications backward compatible till 6), Spring Boot, Kafka, Eureka, Config Server, Spring Boot admin, Spring security, OAuth2, 2way SSL, React, Redux, Saga, Tomcat, Docker, Bamboo, JIRA, Visual studio code, Bitbucket, Nexus

**Model** Agile - Kanban

### EXPRESS SCRIPTS

COGNIZANT CHENNAI

### IBH migration

Oct '16 – Mar '17

The objective of this project is to migrate the existing Power builder application into Cloud based spring application. The existing application handled users who requests for invoice enquire involving multiple careers, recreate invoice to check against the desired specification, viewing discharge summary, viewing contract summary, exporting them as pdf.

### Responsibility

- Understand the principal and the working of **existing Power builder** application. Analyze the existing application design and business rules with the PB experts and accommodating changes.
- **Creating use cases**, detailed **design**, and designing **wireframes**. Creating **interaction** and **class diagram**.
- Developing **Cloud based application** using **Spring Boot, MS sql, JSP, JS, Bootstrap**. Database **design**, writing **SQL scripts**. Also involved in **Unit testing** of the **modules**.
- Develop **mule modules** to fetch salesforce **Account details** transform along with the **Actura** data and populate the MSSQL tables.
- Deploy mule projects into **CloudHub**

### Environment

**Team size** 5

**Tools** Java 7, Mule ESB, Cloud Hub, Spring Boot, AWS Beanstalk, AWS S3, REST, MVC, MS Sql, JSP, Javascript, AJAX, XML, XSLT, PCF, Apache, Eclipse, Sublime text, GIT, Maven, Jenkins, JUnit

**Model** Agile Scrum

## Security remediation

Feb '15 - Oct '16

To **maintain** and **enhance** the **security** of multiple application involving different web technologies by ensuring and fixing the security flaws and defects that are found during penetration testing. It also involved creation of helper jobs that were held to identify the loop holes and sometimes to replicate the issues.

### Responsibility

- Understand the **vulnerabilities** listed in **OWASP** and the client specific checklist. Ensure and test them with other Penetration testers and come up with the list of live infections and documenting them as **pentest reports**.
- Understand and pre-handle solutions for the vulnerabilities like **XSS, Sensitive data exposure, CSRF, XEE, injections, user enumeration, broken authentication**.
- Understand the work flow of existing applications in order to fix the vulnerabilities and to come up with the solution without affecting or breaking the existing functionality.
- Implement the desired designed solution to fix the vulnerability, test the fix, and push it to the production.
- Preparing the **design document** about the trace of vulnerability, its descriptions, functional and technical barriers, suggested alternative solutions and the actual fix implemented.

### Environment

**Team size** 4

**Tools** Java 5,6, Burp, NMap, Datapower, Spring MVC, Spring Security, Mule, REST, Mysql, JSP, Javascript, AJAX, XML, Apache, WAS 7, Eclipse, Sublime text, SVN, Maven, Putty, Winscp

**Model** Agile Scrum

CERNER

COGNIZANT CHENNAI

## Content parser

Jul '15 - Feb '16

The actual existed process of manual **parsing** of **XML** data into client specific rule was time and resource consuming. **Proposed, designed** and **developed** the Java based content parser that generates Clara rules based on the **motive XML** input. These generated **clojure rules** are then fed into the rule engine and the rules are fired against the incoming facts.

### Responsibility

- Understand the functionality of **Clara Rule engine** and the manual process of converting the different subdivisions of **XML** to **Clojure rule**.
- Learn and understand the **Clojure dialect**, syntax notations to be used on clara.
- Creating **use cases** and detailed **design**. Creating interaction and **class diagram**. Capturing business logic in form of **Java beans**.
- Developed **Java application** using **SAX, DOM** parsers based on **Binary Tree with in order traversal**
- Also making sure any functionality is not impacting any existing business.

### Environment

**Team size** Individual developer

**Tools** Java 7, Clojure, Velocity, SAX, DOM, JUnit, JIRA, Confluence, Rigmarole, IntelliJ, Nightcode, Electric commander, Chef

**Model** Agile Scrum

### Care Management Enhancement

Jul '14 - Jul '15

It is a set of activities dedicated to the **enhancement** of the existing CCM application. It involved the creation of **BO reports, pdf exports**, support for more forms on **surveys**, information provided with the enhanced design and accessibility along with the bug fixing in the existing application.

#### Responsibility

- Understand **User Specification Documents/Use Cases** to develop survey forms for the patients, role based changes and a considerable amount of changes in authorization, and also involved in the development of PDF reports.
- **Developed a standalone XSLT template generator application** for CCM's PDF reports generation.
- **Develop Java 6 based REST services**, with **Spring MVC framework**. **Unit testing** of the **modules** **Cooperate with Team Members** during concurrent **developments**.
- Involved in integration testing and deployment of the module as part of the overall application.

#### Environment

Team size 8

Tools Java 6, Spring MVC, REST, JMS, Tibco, Hadoop Hbase, Oozie, Jenkins, Eclipse, GIT, Maven, Putty, JBoss, SOLR, MAPR, Spring Batch, Accurev, SONAR, Junit

Model Agile - Kanban

### NORTH SHORE MEDICAL CENTER

COGNIZANT CHENNAI

### E-discharge

May '14 - Jul '14

E-Discharge is to electronically create, manage, and deliver discharge videos and related discharge information and instructions to patients.

E-Discharge provides an **enhanced discharge summary process** via rich user interface to the **physician** and **nurses** using a **browser-based web-based** solution. The solution provides nurses to enhance the discharge process by capturing more information using templates specific to discharge processes. The solution enables users to record videos/screen capture with picture in picture specific to each discharge using their desktop/laptop. The videos can be edited, transcoded and watermarked by the application services.

#### Responsibility

- **Develop Java based services using Java 1.6, J2EE, Java Beans, MVC framework, Jersey, Mongo db and my sql.**
- **Requirement** understanding of **Sprint tasks** with help of **Business Analyst**. Creation of Class and **UML diagrams using SmartDraw** and **StarUML** for all **modules**. Responsible for **design, development** and **implementation of modules**.
- Implemented the critical functionalities **using Spring MVC**. Developed and deployed on **beta, QA** and **production servers**.
- Participate on daily **Sprint** standup calls to update the accomplished and commitment tasks.
- **Analyzing** and **solving** performance, **transactional, multithreading** and **Java memory issues**.

#### Environment

Team size 9

## Background, Qualification and Experience Summary

|              |  |
|--------------|--|
| <b>Tools</b> | Java 6, Spring MVC, MongoDB, Jersey, Hibernate, My Sql, Jenkins, Eclipse, GIT, Maven, Putty, JBoss |
| <b>Model</b> | Waterfall  |

### SIEMENS HEALTHCARE

### COGNIZANT CHENNAI

#### Complete Care Management

Mar'13 - May '14

It is an overarching concept that aims to deliver the Right quality of care at Right clinically appropriate and customer acceptable frequency of intervention at the Right setting with the Right providers and at the Right cost, while improving consumer experience. It is a set of activities designed to assist **patients** and their **support systems** in managing **medical conditions** and **related psychosocial problems** more effectively, with the aims of improving patients' functional health status, enhancing the coordination of care, eliminating the duplication of services, and reducing the need for expensive medical services.

#### Responsibility

- Understand **User Specification Documents/Use Cases** to implement the code for Lab Results, Medication, Problems, Personal Information sections.
- Participate on daily **Sprint** standup calls involving Hadoop, Tibco, DevOps and Functional teams to discuss on the backlogs as well as the daily to-do and the completed task assigned.
- Develop **Java 6** based **REST services**, with **Spring MVC framework**, **Spring AOP** for logging. **Develop Java Listener** for consuming EMS tibco messages.
- Create a parser to covert **HL7** messages and push it to the queue.
- **Unit testing** of the **modules** **Cooperate** with **Team Members** during concurrent **developments**. Run **SONAR** to check for **code quality violations** and to fix them immediately. **Unit Test** the implemented changes as per **test cases** Debug the implemented **codes** Integrate the changes in **Testing Environment**.
- Fix **reported bugs** of already implemented changes **Cooperate** with **Team Members** during concurrent **developments**.
- Involved in sanity testing and approving the application for production. Backtracking and debugging the issues logged by manual/automation testers as wells as QA to analyze and provide fix
- Developed ran and handled **batch jobs** in multiple environments including production, QA and pre-prod.

#### Environment

|                  |   |
|------------------|---|
| <b>Team size</b> | 17  |
| <b>Tools</b>     | Java 6, Spring MVC, REST, JMS, Tibco, SAML, Hadoop Hbase, SOLR, Jenkins, Eclipse, GIT, Maven, Putty, JBoss, SOLR, MAPR, Spring Batch, Accurev, SONAR, Junit |
| <b>Model</b>     | Agile Scrum   |