# Background

Steven Marcel Fernandes is an experienced Software Engineer with around 18 years experience in design & implementation of enterprise applications. He has domain expertise in Telecom, Insurance, Finance, Inventory, Financial Markets,manufacturing and currently working as an Associate Consultant.

EXPERIENCE SNAPSHOT

INDUSTRY EXPERTISE

* Telecommunication,
* Banking and Finance
* Manufacturing & Logistics

TECHNICAL SPECIALIZATIONS

* Java / J2EE
* Webservices
* Spring
* Hibernate
* SpringBoot
* XML, XSLT
* JUnit
* Angular (2.0)
* Mongo DB
* AWS
* Node JS
* PLSQL
* Python
* IOT
* Arduino, Raspberry PI
* MQTT
* MicroServices
* Docker
* Vault

He has a wide range of experience in Analysis, Development and Implementation of Business / Enterprise technology solutions using Java/J2EE, Spring, Hibernate, Microservices, Docker, Kubernetes, AWS and other open-source frameworks.

# CGI EXPERIENCE

**Geo Chemistry Toolkit (GTO) – Shell** (Jan 2021 till present)

GTO is an end user front-end to Shell's global geochemistry database (FPC). The application is a modular software package that enables you to load, access, interpret and report geochemical data.

* Involved in transition phase from Monolithic Application to Microservices
* Containerize the individual Services/Components.
* Involved in the design of MicroServices and Docker Files
* Involved in the setting up of CI/CD pipeline.

**Technologies used:** Java, Spring Boot, AWS, Docker, Kubernetes, Helm, Vault, Jenkins, GitHub

**Customer Centric Platform (CCP) – British Telecom (**Sept 2019 till Dec 2020)

ECommerce application serves as the key online ordering channel for Agent/Retail Customers for different product lines such as Broadband, PSTN, Mobile, TV, BT Sports, Devices, Converged products. It supports L2C processes including pre-sales, product configuration, checkout and post sales for these product lines. The Ecomm order journeys can be executed by different types of users/agents/partners

* Involved in understanding/transition phase of the existing design/architecture/process.
* Worked on ofbiz framework
* Implemented Appointment Service based on Microservice Architecture.
* Worked with Orange Team delivering key aspects of providing Broadband Only Services to the Retail Customers.
* Delivered several Business Requirements involving both UI (ASM/RTM)/Backend over the period of one year.

**Technologies used:** Java,Weblogic 12c server, OFBiz Framework, Oracle 12c, Git,SpringBoot, Microservices

**Message Broker – Bell Canada (Oct 2018 – May 2019)**

The Message Broker acts a medium of transporting messages from one messaging protocol to other. This is developed on top of spring Framework and it works on the publish/subscribe model. There are Spring listeners/Transmitters implemented/configured as part of this framework. Currently it supports 3 messaging protocols JMS/MQ/Kafka.

* Was involved in the design & implementation & Unit Testing of the Framework.
* Done peer code reviews and assisted in integration of upstream & downstream systems.

**Technologies used:** Java,Weblogic 12c server, Kafka, MQ Series , Java

**Garbage Monitoring System (Jan 2019 until Apr 2019)**

This project IOT Garbage Monitoring system (POC)is a very innovative system which will help to keep the cities clean. This system monitors the garbage bins in the city and informs about the level of garbage collected in the garbage bins via a web page. For this the system uses sensors placed over the bins to detect the garbage level. The system puts on the buzzer when the level of garbage collected crosses the set limit. The sensor data is sent to the monitoring platform via the IOT gateway where the bins are monitored.

* Was involved in the architecture, design, and implementation.
* Done peer code reviews and assisted in integration of upstream & downstream systems

**Technologies/Tools used:**

* Hardware: ESP8266 Wi-Fi Module, Raspberry Pi, Sensor, Buzzer, LED
* Software: Arduino Progamming, Python, Arduino Compiler, MQTT, Angular, NodeJS, MongoDB

**Mobility Transformation Layer – Bell Canada (01/2018 – 09/2018)**

The Transformation Layer acts as a provisioning gateway for SIM provisioning with upstream interfaces (SIMS and Jasper) and SOM (OSM), it receives provisioning requests from SIMS and Jasper with different formats and convert it into the SOM Service order format and send it to the SOM (OSM) via JMS. And return the response to the upstream system based on the SOM (OSM) response.

* Was involved in the design (Java & Database), implementation & Unit Testing of CFS Framework.
* Done peer code reviews and assisted in integration of upstream & downstream systems.
* Assisted team to deliver use cases as per the scheduled plan.

**Technologies used:** Weblogic 12c server, Java 1.7

**SDN/NFV POC – CGI (08/2017 – 12/2017)**

SDN/NFV is becoming a key technology for telecommunication industry globally. The current gap in the market in terms of Systems Integration (SI) capability to pull together the ever-increasing ecosystem of vendors/partners who provides components in order to build the end-to-end solution.

Ciena’s Blue Planet architecture provides a cornerstone in the Lifecycle Service Orchestration (LSO) of SDN/NFV services, delivering significant value-add in the evolution of the service provider OSS/BSS

**Key Features**

* Software-Defined WAN (SD-WAN) to deliver Virtual Routing & Forwarding, Dynamic multi-path routing, Bandwidth on demand, WAN Acceleration, Firewalling etc. by leveraging software defined WAN-Edge-Router and associated virtual components.
* E2E Service Management & Orchestration to provision/configure/monitor the SD-WAN service.
* Introduce and use virtual Firewall

1. Virtual Firewall (VNF) deployment via Catalogue based onboarding process.
2. Create service chain, which includes Firewall-VNF chained within SD-WAN service.
3. Analytics feedback to show the activity on Firewall.

**Expected Benefits are as follows**

1. Virtual Routing & Forwarding (VRF)
2. Dynamic Multi-path Routing
3. Link Failover
4. Automated Access Control & Security

**Involvment**

* Was involved in the creation and onboarding of Service Templates defined using Tosca Modelling

Was involved in the setting up of the DevOps Blueplanet environment

**Technologies used:** Blueplanet Orchestration, Tosca Modelling, Python programming.

**ISSAC Modernisation – Bell Canada – Period (01/2016 to 04/2017)**

The intent of this project is to decommission the ISAAC application, and parts of it will be migrated into the SOT application. New modules will be added to the SO Transformation in this project. The new modules will handle the data flow, interfacing with MCCDS (MainFrame CICS & IMS), OFSE, USODS & OSM in order to transform from the mainframe language into XML. This flow is for the order provisioning for large business Bell Canada customers.

* Was involved in the design (Java & Database), implementation & Unit Testing of CICS, IMS Modules and handled a team of 4 members.
* Was involved in the setting up of SIT/UAT Testing Environments.
* Done peer code reviews and assisted in integration of upstream & downstream systems.
* Assisted team to deliver use cases as per the scheduled plan.

**Technologies used:** Weblogic 12c server, Java 1.7, EJB 3.1, JPA, Mockito/PowerMockito

**Skills and experience gained:** Java Integration with Mainframe Systems.

**Order Fulfilment System (OFS), Bell Canada – Period (01/2014 to 12/2016)**

**Role : Lead System Analyst**

OFS enables the Service Provisioning and activation of Local Number Portability for Port In, Winback, Port out, Pair Bonding etc in a mechanized way. It receives and filters candidates for LNP, retains knowledge of them, purges when required and manages the activation of each task required to complete the order.

* Was involved in the design & implementation of Activation/Post Activation Kickout Reports.
* Prepared detailed design documents validating the business requirements & done peer code reviews.
* Assisted team to deliver use cases as per the scheduled plan.

**Technologies used**: WebLogic Integration BPMS, WebLogic 10x server, Java 1.6, UNIX.

**Skills and experience gained** Domain Knowledge in LNP & Bell Telecom.

**BT Harlequins, British Telecom UK – Period (05/2010 to 11/2013)**

**Role: Lead System Analyst**

Harlequins is a BT led programme that helps the division of BT Group, responsible for the wholesale leasing of WLR3 (PSTN) lines, broadband services through ADSL/FTTH and other telephony services to corporate/retail customers. The Harlequins application comprises of both the Order Placement & provisioning of PSTN lines, Broadband Services. The overall Harlequins programme will be transitioning and transforming their existing OSS.

The main framework was Spring coupled with Hibernate, Spring Web Flow,Mule ESB. Version control is SVN. JIRA for project tracking, Fisheye for source code repository browsing, Jenkins for continuous integration.

* Handled a team of 4-5 members & worked on different modules during various stages of the project.
* Was involved in the designing & integrating of WLR3, Broadband (ADSL, FTTH), Inventory, CMC Portal, Product Catalogue modules.
* Prepared detailed design documents validating the business requirements & done code reviews.
* Assisted team to deliver use cases as per the scheduled plan.

**Technologies used**: Java, Spring, Spring Web Flow, Hibernate, JMS, Webservices, WebLogic Server

**Skills and experience gained** Domain Knowledge in WLR3 & UK Telecom, Product Catalogue (PCM).

**TNT Umbrella, TNT UK – Period (09/2009 to 05/2010)**

**Role : IT Consultant**

TNT Umbrella is an application designed to support the business processes of TNT Post DDM. These processes encompass the sales, planning, preparation and execution of the distribution of door drop media (unaddressed mail) to households in the UK or, in some cases, outside of the UK.

* Prepared detailed design documents validating the business requirements.
* Assisted team to deliver use cases as per the scheduled plan.
* Worked on Application Performance Improvement.

Worked on development of PDF & Excel Reports using IText, Apache POI and Seam

**Technologies used:** JBoss, Seam, Java, JSP, Servlets, IText, Apache POI, Spring, Hibernate, Oracle, JMeter.

**VNAB, Netherlands – Period (04/2009 to 08/2009)**

**Role : IT Consultant**

VNAB is a project which would help its members with modern and efficient infrastructure for direct communication and on-line handling within the co-insurance market. VNAB wants to do this with the aid of an electronic market place where brokers, insurers and expert appraisal desks can exchange, modify data between each other concerning policies (placement), damages (claims) and financial set-off (clearing).

**Responsibilities.**

* Prepared detailed design documents validating the business requirements.
* Assisted team to deliver use cases as per the scheduled plan.

**Technologies used: Web Sphere, Java, JSP, Servlets, FOP, XSLT, XML Spring, Hibernate, Oracle**

**TuneMoney, Malaysia – Period (02/2007 to 03/2009)**

**Role: IT Consultant**

TuneMoney is a comprehensive financial services business portal that offers to purchase financial products online in the following areas namely Unit Trust, Prepaid Card and Insurance.

**Responsibilities.**

* Prepared detailed design documents for the insurance module using Enterprise architect by validating the business requirement.
* Assisted team to deliver use cases as per the scheduled plan.
* Worked along with GIS consultant from Sterling Commerce and was extensively involved in R&D activity on developing new frameworks & Services using BPML within Gentran Integration Suite.
* Reviewed Design & Code for Business Components developed within Gentran Integration Suite (GIS).

Involved in setting & deployment of production environment.

**Technologies used:** IBM BPM Gentran Integration Suite (GIS), Java, JSP, Servlets, FOP, XSLT, XML

# Other experience

**Web Virtual Front Office (Product) - Synchronous Technologies – Period (05/2005 to 01/2007)**

**Role : Module Lead**

The Web Virtual Front Office (VFO) is a Order Management System which provides US retail telecom service providers like GBC USA,Verizon, Telcordia USA,AT & T with a mechanized way to create, validate, update and track and transmit Orders, perform preorder inquiries thus enabling secure and efficient business interactions.

**Responsibilities.**

* Was involved in providing detailed design documents for the LSR/ASR Order/Preorder, ASR Receive Modules using Magic draw.
* Developed the Web services required for receiving Orders from third party Systems and for CLEC domain configuration. Web services calls has been built by using Apache Axis.
* Extensive use of XML,XSLT,XSD for transformation of xml to different formats and use of SAX and DOM parsers for parsing XML documents.
* GUI Framework was developed for rendering forms by parsing XSD & XML’s.

**Technologies used:** Java, JSP, Servlets, EJB, JMS, XML, XSL, Oracle, Weblogic, Struts, Webservices

**Business Rules Management System - Synchronous Technologies – Period (03/2004 to 04/2005)**

**Role : Module Lead**

Wisor’s Business Rule Engine, implements the business rules for each ILEC that performs the validation and errors the order back to the back office system for correction.

**Responsibilities.**

* Analysing and scoping the client’s requirements.
* Design and Develop Business Rules, Rule Flows,
* Systematic generation & deployment of Rule Services.
* Was involved in extensive testing – Unit and Integration Testing.
* Was involved in the design and development of Web Based ILOG Rules Entry.

**Technologies used:** IBM ILOG Rule Engine, J2EE, Servlets, Oracle, WebLogic.

EDUCATION

BE Electronics – Bangalore University

TRAINING AND CERTIFICATIONS

SKILLS SUMMARY

|  |  |  |
| --- | --- | --- |
| **SKILL** | **NUMBER OF YEARS** | **SKILL LEVEL\*** |
| Technical skills | | |
| Java | 18 | 4 |
| Servlets, JSP, Struts | 5 | 3 |
| EJB, JNDI, RMI | 5 | 3 |
| Java Script, AJAX,HTML,JSF | 4 | 3 |
| Webservices, CXF, Axis, JMS | 5 | 4 |
| PLSQL, | 4 | 3 |
| IBM Business Rule Engine - ILOG | 2 | 2 |
| UML | 4 | 2 |
| IText, Apache POI, FOP | 1 | 3 |
| WebLogic, Tomcat, Jetty Server | 4 | 4 |
| RaspBerryPI, Arduino | 2 | 2 |
| IBM BPM - Gentran Integration Suite(GIS) | 2 | 3 |
| BPM – WebLogic Integration Tool | 2 | 3 |
| XSLT, XSD, XML | 3 | 3 |
| Spring | 5 | 4 |
| MicroServices | 1 | 1 |
| Hibernate | 5 | 3 |
| Angular JS | 0.5 | 0.5 |
| Docker, Kubernetes | 2 | 3 |
| AWS | 2 | 3 |
| Vault | 1 | 2 |
| Jenkins | 2 | 2 |
| Mongo DB | 1 | 2 |
| Node JS | 0.5 | 1 |
| Python | 0.5 | 1 |
| Other relevant skills | | |
| Software development | 18 | 4 |
| Team Leading | 5 | 5 |
| Analysis & Design & Integration | 7 | 3 |

*1 = little, 2 = good, 3 = very good, 4 = expert*