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Profile

- ▪ **Sr. Software Engineer** with over **12+ years** of programming experience with **diverse** technologies, specializing in end-to-end software design & development with a focus on **micro-services**/cloud native based distributed systems.

Educational Qualification

- ▪ **Bachelor of Engineering in Computer Science,** VTU Belgaum, India

Technical Expertise

- **Programming Languages:** Java, Scala, Python, NodeJS, Go
- **Distributed Systems:** Spring Cloud, Akka, Apache Kafka, Elastic Search, NATS , Apache Camel, Apache Spark, gRPC/Protocol Buffers, REST APIs, JSON/XML
- **Cloud Computing:** AWS, Google Cloud, Kubernetes, Docker, Micro Services, Virtualization
- **NoSQL:** Crate, Mongo DB, Redis, Memcached
- **Database:** MySQL, Oracle, Postgres, SQLite
- **Middle Wares:** JEE, Spring Boot, Play, Hibernate, ActiveMQ**,** ExpressJS, Bottle.py
- **Web Technologies:** HTML, CSS, JavaScript, JQuery, VueJS, Angular JS, Typescript, JWT
- **Data Visualization :** Plottable (D3)
- **Misc :** Github, Dropwizard Metrics, JMeter, Junit, Mockito, Selenium, Swagger

Professional Experience

Sr. Software Consultant	Google, Sunnyvale, CA	June 2016 - Present

Project: Lantern, Google Corporate Engineering

This web application is used by most of the departments within Google to onboard consultants or vendors for their third-party engagements /temporary staff requirements.
It has integration with other Google services like:
GUTS (Google Unified Ticketing System), Stubby (RPC), Google Corp APIs (Finance, Facilities, HR) and Piper (Google code repository)

Role:

- Designed & implemented batch job to sync status(es) of an engagement from multiple sources like Google's users & group management services, potentially saving 30% of end user's time
- Implemented integration with Google Corp APIs with retry mechanism (*based on fuzzy exponential backoff*) to overcome rate limiting/network errors of RPC calls
- Implemented integration with Google Unified Ticketing System(GUTS) API
- Implemented integration with Piper system
- Implemented mock unit tests & new features
- Troubleshoot & fix production issues (server-side + UI)

Technologies: Python, Memcached, Google Cloud, Google Apps, Angular

Sr. Software Consultant	Equinix, Sunnyvale, CA	June 2014 – May 2016

Summary:
Projects: Equinix Cloud Exchange (ECX)
Equinix Network Operations Center Console (NOCC)

Worked on following projects at Equinix:

1. **ECX:** **ECX** (Equinix Cloud Exchange) Portal simplifies the process of provisioning and managing connections to multiple cloud services & networks across many geographies
2. **NOCC:** NOCC provides centralized interface for provisioning, support & capacity management of network services across Equinix
3. **SDN**: Implemented open network flows using OpenDayLight APIs

Accomplishments:

- o Design & Rewrite existing ECX software modules into a **micro-services** based architecture
- o Designed & implemented orchestration workflows using **functional programming** (*stream*)approach
- o Designed & implemented micro-services using **NodeJS** for **ECX** Portal
- o Designed & implemented micro-services using **Java/Spring Boot** for NOCC APIs
- o Designed & implemented a **Java** based Core **Framework** for NOCC APIs
- o Designed & drafted **API catalogue** for NOCC APIs
- o Designed & developed monitoring and provisioning modules using **Angular** & **Groovy/Grails**
- o Suggested improvements to refactor & reduce the **Javascript/NodeJS** code volume for ECX rewrite
- o Resolved Production System Performance Issues by analysing **Java** thread/heap dumps in **NOCC**
- o Provide technical inputs to team members
- o ETL for Network Inventory Data using SQL
- o **Awarded** with star performer certificate

Technologies: Java, NodeJS , Spring Boot, Groovy/Grails, REST APIs, JSON, SQL, Git, Swagger, AngularJS, JSF, Hibernate

Technical Consultant	Deloitte, Camp Hill, PA	Feb 2014 – June 2014

Summary:

 Project: Department of Social Services, Connecticut
The project deals with enhancing & migrating an existing legacy J2EE application of Department of Social Services, Connecticut with Deloitte's in house built-in J2EE framework

Responsibilities:

- o Lead the team in bringing up the legacy application with Oracle database.
- o Co-ordinated with the team in bringing up the same application with IBM DB2 database.
- o Implemented JUnit use cases to verify some framework functionalities with the new DB2 database.
- o Understanding & analysing application & framework components by debugging & profiling the application
- o Share the understanding of the application & framework components gained with the team
- o Develop new features using Deloitte's in-house J2EE framework

Technologies: Java, J2EE, JUnit, DB2, Oracle, VisualVM, Byteman, IBM Websphere Application Server, IBM Rational Application Developer

Lead Software Developer	Intel, Bangalore	May 2013 – Jan 2014

Summary:

 Project: Intel Device Cloud Platform
The project involved design and development of core platform services for Intel Device Cloud Platform. The platform helps in managing various types of devices/sensors distributed by Intel partners. The platform provides the following features:

- **Device Services**:
  - o Define different device types for different partners.
  - o Define different message types published by a particular device type.
  - o Registration & activation of devices.
- **User Services**: User Identity management, User Token/Session Management
- **Data Processing Pipeline Services**:

- o Define different sensor-data processing pipeline for different device message types.
- o Notification Services like SMS, Email, Http & ActiveMQ notifications
- o Define Filtering Service which comprises of evaluation of certain expressions on incoming device/sensor data, whose outcome can either continue or stop further execution of the pipeline.
- **Visualization Services:**
  - o Define configurable view definitions for different partners.
  - o Define different view types like Bar Chart, Line Chart, and Tabular Views.
  - o Render/Visualize sensor-data collected from devices in Bar Chart, Line Chart & Tabular Views etc.
- **Management Portal:** Web based portal to define, view & configure above services.

Responsibilities:
- o As a lead developer, I was actively involved in defining & implementing the technology stack for the entire Platform using Java, Spring, Apache Camel, Thymeleaf, Hibernate, Mongo DB, JQuery & Foundation UI etc.
- o Designed and implemented core platform services for Intel Device Cloud Platform, which include:
  - Sensor Data Processing Pipeline Configurations (*Individual Contributor*)
  - Intel Sensing Platform Management Portal (*Primary Contributor*)
  - Integration of Management Portal with Platform Restful Services (*Primary Contributor*)
  - Device & User Identity Management (*Assisting Team Members & Secondary Contributor*)
  - Sensor Data Visualizations (*Assisting Team Members & Secondary Contributor*)
- o Lead a team of three people by giving technical inputs for both software design & implementation.

Technologies: Java, Spring, Hibernate, Jersey, MongoDB, Thymeleaf, Apache Camel, MySQL, Maven Foundation UI Framework, QueryDsl, JQuery, JSON, JavaScript, HTML, CSS, ChartJS

Senior Software Engineer	MusicPolo, Bangalore	January 2011 – April 2013

Summary:
MusicPolo is an online portal focussing on Indian music. The portal offered users to buy, listen & browse albums by language, artists & year. The project involved design and development of core platform services for MusicPolo.

Responsibilities:
- o Learnt some basics of **Scala** & **functional programming** language concepts
- o Worked out some basic examples in Scala
- o Learnt Play framework & **Akka** Actors basics
- o Used **Playframework** as the main application framework
- o Implemented the UI templates in Scala, as Play framework has a scala based templating engine
- o Used akka actors (available as part of the framework) in implementing a custom loadbalancer & cluster management.
  - o Designed core architecture for MusicPolo, an online music portal.
  - o Developed scalable database schema design to accommodate file path references to large collections of media files.
  - o Developed core abstraction layer for database operations, which was conceptually similar to QueryDsl, but was intended for basic cum-dynamic DB queries.
  - o Developed core infrastructure modules for cluster management & load balancing services.
  - o The above modules were implemented using **Akka** actors
  - o Developed modularized UI framework architecture & custom field data validation framework.
  - o Implemented UI templates in **Scala** code
  - o Developed platform dashboard for monitoring server clusters.

Technologies: Java, Play Framework, Scala, Akka, MySQL, Zurb Foundation, Bootstrap, HTML, CSS, JavaScript, JQuery

Member of Technical Staff – II	VMware, Bangalore	March 2008 – December 2010

Summary:

Project: Ionix SAAS Platform

The Ionix SAAS Platform was an initiative to SaaSify some of the on-premise products like Infra (ITIL product) & Corsica (Compliance as a Service) & offer the same over the cloud.

Responsibilities:

- Designed & developed core modules for the Ionix SaaS platform: Tenant& *User Lifecycle Management* (TLM) web service APIs & *Tenant Provisioning Module*.
- Involved in development of Ionix SaaS platform dashboard & integrated TLM SaaS web service APIs & Tenant Provisioning Module with the same.
- Involved in integrating two end-point-applications with the Ionix SaaS platform: Corsica (Compliance as a Service) & Infra (ITIL).

Project: Automated OS Provisioning Server Integration

Automated OS Provisioning Server helps in automating the deployment of different flavours of OS on target Virtual Machines & also on bare metal hardware.

Responsibilities:

- Involved in integrating VMware's VCM (Virtual Configuration Manager) with VMware's ASM (Application Stack Manager).
- Worked on integrating VMware's OSP (automated OS Provisioning Server) with vSphere API for ESX cluster registration.

Technologies: Java/JEE, Spring, REST Web Services, JAXB, JQuery, MySQL, Python, C++, VMware vSphere API

Technical Specialist	Infosys, Bangalore	November 2003 – February 2008

Responsibilities:

- Involved in design & development of a Banking Application, which was a J2EE reference implementation based on Infosys J2EE Framework called Radien.
- Involved in the development of Infosys in-house J2EE profiler using Aspectwerkz AOP & Java Swing.
- Involved in benchmarking of Infosys in-house J2EE framework using JMeter & LoadRunner tool.
- Involved in developing Infosys methodology for Mainframe modernizations.
- Lead Infosys Web 2.0 & RIA based initiatives & suggested architecture for integrating RIA with existing backend infrastructure to Citibank & Apple Inc.

Technologies: Java/J2EE, Web Services, AOP, Java Based Tools Development, RIA, Adobe Flex, Web 2.0