

# Vig Venkat

Learn. Create. Solve. Repeat.

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## Summary

- A passionate software engineer with 5+ years of professional experience building scalable and efficient systems & services, in multiple technology ecosystems. I love technology and like solving business/human problems, using them. At work, I practice effective communication and focus more on productivity.
- I'm looking for a Senior Software Engineer position. I am open to relocation and might need Visa sponsorship.

## Experience

### **M800 Ltd, Hong Kong (A CPaaS company) - Senior Software Engineer ( 2018 June - Current) - (1.5 yrs)**

- As part of core R&D backend team, I built scalable, highly available and reliable backend services in multiple ecosystems, primarily in **Java** and recently in **Go**.
- We built efficient, concurrent and reactive applications using **AKKA** for complex telecom backend requirements. We used **Apache Kafka** as the PubSub/Message-Bus and mostly **HTTP** for inter service communication.
- **MongoDB** remained our ultimate No-Sql DB and **Redis** for our application level caching.
- All our services are properly wrapped using **YAJSW** and emit relevant metrics using **Graphite/Prometheus** with useful dashboards built using **Grafana**, for ease of monitoring.
- We have our global network of data centers and dedicated operations team to set up and deploy all our services in bare metal machines.
- All our services are well unit tested using **TestNg/Mockito** and stress/load tested using **Tsung or K6**.
- Recently we started writing services in **GoLang** for its absolute efficiency and low memory footprint. And all our new Go services are deployed in **Kubernetes**, while still adopting our concurrent/scalable design and strict requirements.

## Projects

- Project Identity (Phase 1)
  - An Identity is any verifiable information about a user.
  - Project Identity allows customers to collect/analyze/identify information about their users and their verified Identities.
  - To build rules and statistical models on top of it for various business functions, such as fraud management etc.
  - **Lead developer** of this project. Contributed to **65%** on the design and development.
  - Designed most of the APIs while working closely with mobile development teams.
  - **Geo - Location Push service** - This functionality lets customers send a geo location specific notifications to their users when they travel abroad.
- Bulk Delivery Management System - Mass Push Notifications API
  - BDMS - is a system to send bulk notifications to all the customers in a single Api call.
  - **Lead developer** of this project. Contributed to **70%** on the design and development.
  - Built this project in **reactive assembly line** architecture.
  - Handled tougher requirements of sending to maximum half a million users in a single api call with in short period of time.
- Notification Service
  - This service essentially sends out notifications to client devices through multiple interfaces.
  - I worked on few interfaces such as **Xiaomi push, Huawei push**. Those interfaces helps the system to send notifications to both devices both **inside China and to the global devices**.

## Infosys, India - Senior Systems Engineer ( 2013 Sept - 2017 Aug) - (4 yrs)

- As a Senior Systems Engineer. I was part of the development and production support team, that served an International AgriBusiness client called Syngenta.

### *Projects*

- **Syngenta - Ecommerce and CRM :**
  - We built, shipped and maintained an Online Ecommerce channel for our client. We massively used **Java/J2EE** technologies. The frontend used **JSP** and backend used mostly **SAP-CRM** system.
  - As part of the production support team, I have solved more than 100 incidents and major enhancements to the system.
  - In the last two years, I was also responsible for code review of the java modules and fixes made by my team.
- **Queue Stuck Avoider**
  - This is an application that I built for the company to solve a very significant problem that existed in the deployment pipeline that caused major downtime for the release.
  - It was built using completely new stack such as **Visual Basic, Web scraping, MS Outlook**
- **Lync Offline Notifier**
  - This was built during a company wide hackathon.
  - It solves a very important problem of knowing and scheduling work to colleagues by figuring their Lync status and schedule, offline.
  - Built using **VB/.NET framework, MS Lync SDK and Twilio apis to send sms.**

## Orangescape Ltd , India - Intern ( 2013 June - 2013 Aug) - (3 months)

- **Interactive Error Analytics Dashboard**
  - Built an error analytics dashboard for the company's real time error data stored in Google big table.
  - The dashboard was built using **Python, JQuery, Big query, Google App Engine**

### *Education*

- **(MSc - IT) Hong Kong University of Science and Technology, Hong Kong** (2017 - 2018)
  - Major subjects - AI, Computer Vision and Recognition systems, Cryptography, Data Mining and knowledge discovery, Machine learning, Networks.
- **(BTech - IT) Anna University, SSN college, India** (2009-2013)
  - Major subjects - Engineering Mathematics, OS, Networks, Web Development, Computer Architecture, Software Engineering.

### *Open source Projects*

- **Rest API for Thirukkural, Ancient Literature**
  - Thirukkural is an ancient wisdom literature written in Tamil, one of the oldest languages in the world. Built a rest api around it and utility frontend widgets to display them.
  - <http://infintekural.net>
  - Built using ExpressJS, NodeJS, MongoDB and Jade templating.
- **VLC Media Player Addon - Subtitle Dictionary**
  - VLC media player addon to show the synonyms of the words displayed in the subtitles at any instant of the media playback.
  - Built using VLC runtime, Lua language.

- **Automated Jigsaw puzzle solver - Computer vision/AI**
  - Built an automated solver for Jigsaw puzzles
  - Using Matlab, Computer vision and Image processing techniques
- **Medical Image Analysis (Breast cancer classification)**
  - Improved the accuracy of the existing implementation of Breast cancer classification using Frequency Image Analysis and popular Machine learning algorithms such as SVM.
  - Using Python, Matlab, Signal processing and Neural Networks.
- **Virtual Music System using hand gestures - Global Infosys Hackathon**
  - Built a virtual music system, capable of playing various music notes by moving hands in front of webcam.
  - Using C++, OpenCV, JFugue music synthesis for server.

<p>Certifications</p> <p><b>RedHat Certified Engineer - RHCE</b> From: Redhat Inc.</p> <p><b>Certified Secure Software Lifecycle Professional - CSSLP</b> From: (ISC)<sup>2</sup></p> <hr/> <p>Other Skills</p> <ul style="list-style-type: none"> <li>● Effective communicator <ul style="list-style-type: none"> <li>○ I practice effective communication and also enable it in my team.</li> </ul> </li> <li>● Focus on productivity/deliverable <ul style="list-style-type: none"> <li>○ I always strive to be highly productive and deliver things right on expected time.</li> </ul> </li> <li>● I try to ask the right questions <ul style="list-style-type: none"> <li>○ There are always many things to do. What is the most important of it all?</li> </ul> </li> <li>● Team Player <ul style="list-style-type: none"> <li>○ I focus on friendship and acceptance</li> <li>○ I eagerly learn from my peers</li> <li>○ And willingly guide juniors in the team.</li> </ul> </li> </ul>	<p>Technical Skills</p> <table> <tr> <td><b>Languages</b></td><td>Java, J2EE, Go , Python, NodeJs</td></tr> <tr> <td><b>Frameworks</b></td><td>Akka, Jersey, Guice, Guava, JSP, Express-JS, Zookeeper, SAP-CRM, YAJSW, OpenCV, Numpy, Nginx, Struts 1.0, Ajax, FastHttp, Gin</td></tr> <tr> <td><b>Protocols</b></td><td>Http</td></tr> <tr> <td><b>Messaging</b></td><td>Kafka</td></tr> <tr> <td><b>Database</b></td><td>MongoDB, Redis, SQL</td></tr> <tr> <td><b>Data science</b></td><td>Jupyter, Matlab, Python</td></tr> <tr> <td><b>Cloud</b></td><td>Docker, Kubernetes, Heroku, Google App Engine</td></tr> <tr> <td><b>Devops</b></td><td>Salt, Jenkins CI, Gitlab CI, Kubectl, Kustomize</td></tr> <tr> <td><b>Design</b></td><td>Monolith apps, Microservices, distributed services.</td></tr> <tr> <td><b>Monitoring</b></td><td>Graphite, Prometheus, Grafana</td></tr> <tr> <td><b>Front end</b></td><td>HTML, CSS, JSP, Bootstrap, Responsive design*.</td></tr> <tr> <td><b>OS</b></td><td>Redhat Linux, Ubuntu, MacOS, Windows</td></tr> <tr> <td><b>Testing</b></td><td>Junit, Mockito, Powermock, Akka Testkit, K6, Tsung</td></tr> <tr> <td><b>Tools</b></td><td>Intellij IDE, VCode, Vim</td></tr> </table>	<b>Languages</b>	Java, J2EE, Go , Python, NodeJs	<b>Frameworks</b>	Akka, Jersey, Guice, Guava, JSP, Express-JS, Zookeeper, SAP-CRM, YAJSW, OpenCV, Numpy, Nginx, Struts 1.0, Ajax, FastHttp, Gin	<b>Protocols</b>	Http	<b>Messaging</b>	Kafka	<b>Database</b>	MongoDB, Redis, SQL	<b>Data science</b>	Jupyter, Matlab, Python	<b>Cloud</b>	Docker, Kubernetes, Heroku, Google App Engine	<b>Devops</b>	Salt, Jenkins CI, Gitlab CI, Kubectl, Kustomize	<b>Design</b>	Monolith apps, Microservices, distributed services.	<b>Monitoring</b>	Graphite, Prometheus, Grafana	<b>Front end</b>	HTML, CSS, JSP, Bootstrap, Responsive design*.	<b>OS</b>	Redhat Linux, Ubuntu, MacOS, Windows	<b>Testing</b>	Junit, Mockito, Powermock, Akka Testkit, K6, Tsung	<b>Tools</b>	Intellij IDE, VCode, Vim
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