

# Akshay Vivek Verma

Software Engineer-III, Avaya  
11 Years of Software Engineering Experience  
Serverless Microservices, Webapps & Telephony

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## EXPERIENCE

### Avaya, Pune — Software Engineer-II, III (Project: Common Business Service)

JULY 2019 - PRESENT(4 Years)

- Part of Avaya's customer order provisioning team for cloud offers, from order fulfillment to customer's usage measurement.
- I have led a team of 4 developers through phases of requirement gathering to design and implementation of features and enhancements.
- Experience with development of *scalable, multi-tenant serverless* solutions using AWS services such as Lambda, SQS, IAM, Cognito, DynamoDB, API Gateway, S3, Athena.
- Well versed with *microservices* patterns such as *orchestration* and *choreography* to accomplish business tasks using **Java(SE)** and **Python 3**.
- Involved in maintenance of CI pipelines and build tools using **git**, **Atlassian-Bamboo**, **maven**, **serverless framework**. Experience with **AWS Cloudformation** to spin up infrastructure stack.
- Built an **SDK in Java** for consumers of our service. The sdk provided easy to use interfaces and abstracted away lower level details such as **Authentication(IAM)**, **HTTP retries**, **Serialization and Background Polling**.
- Insist on designing systems that use well defined **service boundaries**, **interfaces** and **GOF design patterns** such as **Builder**, **Observer**, **Decorator**, **Strategy** etc. Test frameworks such as **Junits** for unit tests and end-to-end automated tests.
- I have expertise in developing services that both expose **RESTful APIs** or listen for custom events. Furthermore, I have implemented services that consume REST APIs, adhering to standard naming conventions and utilizing the **OAUTH 2.0** authentication scheme.
- **4 Years of experience in working on a Spring Boot** Web application that exposed functionality such as user management, product catalog, usage collection from data sources such as MySQL, Ldap server, HTTP Server with **Postgres** as the underlying database.
- **2 Years of experience with AngularJs** for building web UI for product catalog and data collection. I have good knowledge of **HTML**, **Javascript** and **CSS**.
- **6 Months of experience with working on Data warehouse** using Microsoft **SSIS** for ETL and **SSAS**.
- Bootstrapped tiny web-app tools using **Flask & React** for Cloud Operations team, replaced direct API invocation by providing an easy to use UI.
- Strive on automating tasks by writing scripts in **Python**. Such as synchronizing s3 buckets between AWS accounts, reverting dev accounts to a clean slate and migrations of databases.

### Avaya, Pune — Software Engineer-II (Project: Java Kafka Client)

DEC 2018 - JUNE 2019 (1 Year)

- Built an application to interact with **Kafka** broker using **Java(SE)**. It is responsible for synchronizing realtime configuration settings of Avaya's PBX Communication Manager.
- The app exposed a TCP server to listen for configuration events using a custom protocol, built using **Java Non-blocking sockets**.
- To enable concurrent listening for configuration events and consumption and production to Kafka, the application was designed to be **multi-threaded**. The implementation incorporates multi-threading constructs, such as **blocking queues** and **countdown latches**, for synchronization.
- The application was **containerized** using **docker** and deployed to a **docker swarm**. I have experience with packaging RPM, creating container images, running and monitoring of docker containers.

- Well versed with Kafka constructs such as **Topics, Consumer, Consumer Groups, Consumer Offsets, Producer, Rebalance** etc.

### **Avaya, Pune — Software Engineer-II (Project: Quicksilver-Endpoints)**

AUG 2017 - DEC 2018 (1 Year)

- I worked on the development of Avaya's J129 series desk phones using C++. My role involved ensuring compliance with the **SIP** (Session Initiation Protocol) RFC 3261 standard to enable interoperability with Broadsoft's PBX.
- My work involved implementing various features, including talkpath detection by interfacing with the media engine for **RTP** packet detection and running a local **DNS server** to simulate DNS bugs.
- I also worked on the **SIP** and **SDP** (Session Description Protocol) signaling for **Hold, Transfer, and Conference** scenarios in the project.
- I have a good understanding of Layer3,4 and 7 protocols such as **IP, TCP, UDP, TLS, DNS, HTTP, SIP, SDP, RTP** and well acquainted to network monitoring tools such as **wireshark/tshark, sipp, nmap, nslookup, netcat**.

### **Avaya, Pune — Software Engineer-I (Project: Communication Manager)**

MAY 2015 - AUG 2017 (2 Years)

- Developed call control features using **C/C++** on Avaya's core telephony switch.
- Expertise in the area of **SIP** protocol development for addition/updation of headers and **SDP** negotiation.
- Integrated **Feature Access Codes(FAC)** on Extended cellular devices. Imagine you forward your office meeting onto your cellular device, using **FAC**(sequence of well defined digits such as \*01) You can add your colleague to this conference.

### **Tata Consultancy Services, Chennai — Systems Engineer (Project: Alcatel Lucent OmniPCX Server)**

SEP 2012 - APR 2015 (3 Years)

- Developed call control features using **C++** on Alcatel Lucent's PBX for small and medium enterprise.
- Debugging and fixing **CFD**(Customer found defects..)

## **EDUCATION**

### **Sikkim Manipal Institute Of Technology, Sikkim — Computer Science & Engineering**

JUNE 2008 - MAY 2012

### **Vikas Vidyaniketan, Visakhapatnam — XI- XII**

JUNE 2006 - Apr 2008

### **Kendriya Vidyalaya, Assam — I-X**

JUNE 1996 - Apr 2006

## **AWARDS**

- **RSU Grants** in Avaya for 2 consecutive years and **Club Stellar award**.
- **TCS gems** for exemplary performance.