ANUJ MODI

SENIOR PROFESSIONAL

PROFILE

Software engineer possesses extensive hands-on experience across various stages of project development, from meticulous planning to seamless deployment. My expertise encompasses a comprehensive understanding of performance, functionality, integration, system, and user acceptance aspects.

CONTACT

Mobile: (+91) 7838451348
E-mail: anujmodi555@gmail.com
Location: Gurugram, Haryana

SKILLS/TECHNOLOGIES

- Fluent in Python(Django) And Databases
- Databases - PostgreSQL, TimescaleDB, MySQL
- AWS, Docker, Kubernetes, Jenkins
- Libraries - RabbitMQ, Boto3, Celery, Numpy, Pandas
- Tools - Kafka, Ansible, Zabbix, Wireguard, MQTT, Antmedia
- SW Tools - Git, SVN, Jira, Slack
- Hadoop - HDFS, Hive, Sqoop, Confluent
- Data Structure and OOPs Methodologies
- Third-Party API Integration (Google, Facebook)
- API design, Payment Gateway Integration
- Performance and scalability optimization
- OS : Windows, LINUX

PROFESSIONAL PROFILE

CAPGEMINI ENGINEERING

Senior Professional I - Engineer
Nov 2021 - Present

VVDN TECHNOLOGIES Pvt. Ltd

Technical Lead
Jan 2015 - Nov 2021

EDUCATION

GLA UNIVERSITY

B.Tech in Computer Science And
Engineering   (2011-2015)

Work Experience

Project Title: Cisco Matrix (Customer - DISH Wireless)

Project Description
In this project, we have successfully developed an application using the Cisco Matrix Application built on the Python Django Framework. The primary focus was on implementing robust data pipelines that efficiently consume telemetry time-series data from 30000+ networking devices through Kafka deployed across 3 AWS Regions. The data is then processed using Celery workers, and ingestion is managed through Database (DB) consumers. The processed data is presented on a Web UI through graphs and charts. The application features multiple Dashboards, each with distinct panels showcasing device data based on various parameters or Key Performance Indicators (KPIs). One notable aspect is the generation of real-time alerts triggered by user defined thresholds for each KPI.
Within the project, my role and responsibilities encompass a range of key areas. I have been actively involved in the migration of the On-Prem system to an AWS infrastructure, demonstrating expertise in feature development using Python Django. Additionally, I've played a crucial role in the deployment of various services related to the Cisco Matrix on AWS, utilizing Docker and Kubernetes for efficient containerization. SQL Query Optimization has been a significant focus, ensuring optimal performance for the diverse dashboards.
Moreover, my contributions extend to the implementation of data pipelines in Python, Docker Containerization, Managing and Monitoring Containers using Kubernetes and the deployment, replication and upgrade of a multi-node cluster for TimescaleDB. I have also been involved in tasks such as data compression, data aggregation, and various other aspects crucial for the overall success of the project. This comprehensive set of responsibilities underscores my commitment to ensuring the project's success and efficiency across multiple facets.

Technologies: Python(Django), Postgres(TimescaleDB), AWS Services(EC2, S3, ELB, VPC, IAM, ASG, CloudFormation), Kafka, RabbitMQ, Celery, Docker, Kubernetes, Redis, Jenkins

Role: Backend Developer

Project Title: Longship

Project Description
In this project, we leveraged SD-WAN technology to facilitate communication, management, and configuration of networking devices spanning multiple locations. This involved employing a centralized control function to securely and intelligently direct traffic across the Wide Area Network (WAN).

My contribution to this project centered around designing and developing a microservice-based cloud architecture deployed on AWS, utilizing Docker and Kubernetes. I was responsible for developing backend Rest APIs to facilitate device communication and operations, designing the database structure, and implementing Continuous Integration/Continuous Deployment (CICD) tasks through Jenkins.
The project's administrative functionalities, such as viewing device lists, device configuration, and topology through REST APIs. To establish secure control and data tunnels between devices and the Appliance (Admin Panel), we incorporated the Wireguard service. This setup was further utilized by Ansible to initiate Secure Shell (SSH) connections and execute playbooks for device configurations. For storing telemetry data of devices, we have used Zabbix, with TimescaleDB serving as the Zabbix Datastore to enhance the performance of reading and writing telemetry data. Additionally, Celery jobs were implemented to manage background tasks, including device configuration and retrieving monitoring data from Zabbix for each device. To enrich the user interface, we integrated Grafana with the Zabbix database, enabling the presentation of charts and graphs within the Appliance UI.

Technologies: Python(Django), Postgres(TimescaleDB), Docker, Kubernetes, AWS Services (EC2, IAM, VPC, ELB, ASG), MQTT, Ansible, Zabbix, Celery, Wireguard, Redis
Role: Backend Developer

Project Title: First Responder Tech

Project Description:
In this project, there is a WiFi Weapons Detection Device that can detect concealed weapons and explosives while entering areas such as schools, stadiums, airports, and other public spaces.
My role in this project is to design a database schema for the management of devices, creating REST APIs for Register, View, Edit, Delete, Pagination, Filtering, Image/Video upload/download to S3 etc.
Used MQTT message broker for sending commands to device.
Integrated Antmedia with backend for streaming of videos from UI.
Implemented Celery jobs for background tasks.

Technologies: Python(Django), Postgres(TimescaleDB), Celery, MQTT , S3, Docker, Antmedia

Role: Backend Developer

Project Title: TruConnect Ecommerce Website

Project Description:
TruConnect is an eCommerce website that sells Single and bundled products basically smartphones and tariff plans.
In this project, I had worked on various frontend and admin modules such as WordPress integration, one-step checkout, multiple store handling, ACLs, various store themes, shipping and payment method customization module, Magento widgets, order emails customization and handling, events, added custom attributes for customer and product, admin menu customization, and various store configurations, etc.

Technologies: Magento Framework 2.0, WordPress, MySQL Database, HTML, CSS, Javascript, Third Party APIs
Role: Magento Developer

Project Title: Traxstar

Project Description:
In this project, there is one mobile app that helps a user to keep track of any person carrying the Traxstar device. This app works on the location data synchronized via the cloud, provided to it by a GPS device.
My role in this project is to write REST APIs for Device management, User management, inventory management, Geofencing, etc.
Integrated Payment Gateway with Website for selling devices.
Implemented alert system in the backend that will be shown in APP if a user with device goes outside of geofence defined or it may be late while entering or exit from the trusted area.
Implemented Rest APIs for sending commands to the device via web socket.

Technologies: PHP(Zend Framework), Doctrine Orm, MySQL, HTML, CSS, AWS, Payment Gateway

Role: Backend Developer

Project Title: Confidential

Project Description: Confidential

Technologies: Python Django, Celery, Hadoop, MySQL, Hive, Sqoop, Kafka, Dokuwiki etc

Role: Backend Developer

Project Title: HFCL

Project Description:
In this project, the focus is on efficiently managing multiple routers through a Management Console, which involves a range of tasks. These tasks include pushing diverse configurations to individual devices or groups of devices, monitoring telemetry data from the devices, managing the overall state of the devices, and generating reports based on various KPI parameters. Incorporating MQTT (Message Queuing Telemetry Transport) tasks for enhanced communication and control. MQTT facilitating real-time data exchange between the Management Console and the routers. This integration of MQTT further enhances the system's responsiveness and ensures timely dissemination of critical information, contributing to the overall effectiveness of the network management solution

My role in this project, developing REST APIs that facilitate device operations such as configuration updates and report generation. development of MQTT-based functionalities within the REST APIs to enable tasks such as device status updates, event notifications, and seamless communication between the Management Console and the routers. Additionally, my involvement extends to leveraging Timescale Aggregators for efficient data handling, enabling the generation and download of reports.

Technologies: Python(Django), MQTT, Postgres(TimescaleDB), Docker, AWS Services (EC2, S3, IAM, VPC, ELB), Jenkins

Role: Backend Developer