Mayank Rao

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Education

HIGH SCHOOL | 2014-2016 | DPS BANGALORE SOUTH

COMPUTER SCIENCE | 2020 | PES UNIVERSITY, BANGALORE

● CGPA: 7.95/10

FULL TIME AT PUBLICIS SAPIENT (8 MONTHS JUL 2020 - PRESENT)

- Worked with **Kubernetes** basics to deploy an application, using **AWS ECR, AWS Codecommit, AWS S3**
- Worked on **CDK8s**, a new way to deploy K8s clusters on AWS, along with publishing messages through **AWS SQS** and subscribing to notifications through **AWS SNS**.
- Set up cloud services for **ROS** (Robot Operating System). Provisioning VMs for deployment of the ROS, working with a Robot delivery system, using **Raspberry Pi**, with ROS support and **Python**.
- Setup **AWS SQS, AWS SNS, AWS EventBridge, GCP Pub/Sub** and **Kubernetes** to build a bridge between **AWS and GCP**, as clients use both Cloud Providers, a requirement was to be able to publish and consume messages between them.
- Wrote a custom SDK for various **GCP** services to be used internally within the company, basically providing a layer of abstraction for most of the **GCP** services.
- Construction of a multiple **compilers** for a specific query language. The **compiler** had to consume a language provided by the client in order modify data and place restrictions on data just by modifying a config.
- Consuming data and writing APIs to process data from **GCP BigQuery.** Involved a lot of intermediate steps where data would be collated and then processed by the custom compiler before being shipped to other GCP services.
- **GCP Cloud Run** and **Firebase** setup and deploying the custom compiler code along with load testing using **JMeter and Locust.**
- Automating the process of moving data between **GCP BigQuery, Cloud Storage and Cloud SQL.** Writing **Airflow (GCP Composer)** scripts to track and move data between all three services at scheduled times, along with re-deployment of code.

SUMMER INTERN AT PUBLICIS SAPIENT (6 MONTHS JAN 2020 – JULY 2020)

- Automated deployment using **Jenkins** to help automate the code **Pipeline and sync it with Bitbucket and AWS.**
- Developed the application, using **Reactjs with Redux**. Used **Material UI** as framework. Constructed multiple components used in the application.
- Created an automated pipeline with **Jenkins** to consume all test cases and pass it to **SonarQube**.
- AWS setup, setting up public and private VPCs for the microservices as well as storing all vendor images on **AWS S3**. Setting up **Bastion** to communicate with private instances along with **Docker** services.

- Wrote custom APIs to enable scaling up **of Netflix Zuul**. handled scaling of **MongoDB** databases along with load testing using **Gatling** and **Locust**.
- A custom **Docker** orchestrator that monitored instances and scaled up or scaled down based on very specific requirements.

SUMMER INTERN AT ZINKA LOGISTICS (BACKEND DEVELOPER) (BLACKBUCK) (2 MONTHS May 2019 – July 2019)

- Writing APIs in **Springboot** to handle GPS data and tracking services for Truck Owners
- On receiving alert from **Prometheus** message queue, consume the alert and send an email using Java to the respective department.
- Setting up APIs and alert systems for **Zendesk** ticket system. Managing alerts through Prometheus and **Java**

Project work

- **Project Management (In Progress) (https://github.com/MayoSR/ProjectManagement)** A project management tool for college to allow students and professors to track progress as well as maintain a log for future usage, using **React, Material UI and Spring Boot.**
- **Real-Time Chat Application (https://github.com/MayoSR/FireChat):** An application that allows real time chatting. Uses **Google OAuth** for authentication. **(Firebase and React)**
- **Socket Programming (Connect 4 https://github.com/MayoSR/connect4 / Rummy https://github.com/MayoSR/RummyGame):** Multiplayer games using **Socket IO, using Nodejs, Express, SocketIO, jQuery, Bootstrap (Python and Nodejs)**
- **Hand-Drawn Page Converter** (https://github.com/MayoSR/HTML-Template-to-Website-converter): Converts hand drawn wireframes of HTML pages into real websites using Support Vector Machines and returns a copy of the rendered web page. **(Keras, SKlearn, Flask)**
- **Food Ordering Service App (https://github.com/MayoSR/food-repository):** Prototype that was used to obtain votes for the **Red Bull Basement Hackathon.** (**Angular)**

PROGRAMMING LANGUAGES & SOFTWARES

- **Main**: Java, Python, C, JavaScript (ES6)
- **Web & Databases:** React-Redux, Angular (Basics), Nodejs, Express, Flask, Spring framework, jQuery, Material UI, Bootstrap, HTML, CSS, PHP, MySQL, PostgreSQL, MongoDB, Hibernate, Firebase
- **DevOps & Microservices & Cloud**: AWS, GCP**,** Heroku, Docker, Kubernetes, Jenkins, Netflix OSS
- **Testing & Automation & Version Control:** JMeter, Sonar, Mockito, Junit, Cucumber, Gatling, Locust and Selenium Web-driver, Postman, Git

ACHIEVEMENTS

- Top 5 India for **Red Bull Basement Hackathon** (Voting round)
- Tied rank #1 on **Hackerrank** platform for **Python** programming language
- Top 500/27000 teams for **Codechef Snackdown**