AKASH RUPAPARA

"Ever Positive, Never Negative"

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Summary

I am passionate, enthusiastic, and self-motivated about full-stack development following Swami Vivekananda's Saying "Arise, awake and stop not till the goal is reached." to achieve my goal of becoming an expert in Software development to solve existing societal problems. I am easy to work with, a good listener and communicator.

Technical Skills

Programming Languages	: $C/C++, JavaScript, Java, Python$
Web Technologies	: $ReactJS, NodeJS, ExpressJS, Redux, ApacheKafka, GraphQL, Django$
Databases	: $MongoDB, MySQL$
Cloud	: $AWS-Cloud(EC2, S3.ECS, RDS), Docker$
Libraries	: $Pandas, NumPy, Matplotlib, Tensorflow$

Experience

Software Engineering Intern Jan. 2020 – Dec. 2020

Shriji Technoaspire Pvt Ltd *Gandhinagar, Gujarat*

- Designed and developed E-commerce and company's profile website for the company with ReactJS, NodeJS and MySQL. Also, worked on Web portal for Smart electric meters to analyse electricity usage and home automation.

Machine Learning Intern June 2019 – Nov. 2019

VNurture Technologies *Ahmedabad, Gujarat*

- Image processing with Django and flask using Machine learning algorithms to develop fashion recommendation system. Model recommended clothes for input image of person with approximate accuracy of **90%**.

Academic Projects

Indeed-Clone | *MERN Stack, Redux, Redis, Kafka, Docker, AWS*

- Coordinated with team to develop distributed system using micro-services for job board facilitating employers, jobseeker and Admin roles.
- Implemented functionalities for job search, job application, chat, company reviews and many more.
- Integrated Redis caching to improve throughput and reduce latency. Integrated message broker (kafka) to achieve scalability and reliabilty of API requests.

UberEats-Clone | *MERN Stack, Redux, Kafka, AWS, GraphQL*

- Developed application using MERN Stack and implemented state management using Redux, resulting in optimized performance. Tested application using JMeter and Mocha.
- Deployed Application on EC2 instance and storing images in S3 bucket.
- Reduced the Latency by **10%** using Data-pooling option available in MongoDB to enable reuse of multi-threaded connections. Message queue is configured to create 10K user support using Kafka.

Vaccine Management System | *ReactJS, Java, Spring Boot, AWS, MySQL*

- Contributed in team to develop Vaccine Management System where user can login to book slots for vaccination and manage appointments for clinics added by the admin.
- Integrated OAuth with google with spring security for login and signup with email verification.

COVID CT Scan Diagnosis | *PCA, Numpy, Pandas, Tensorflow, ML Algorithm*

- Patient's CT Scan images of lungs are used to predict diagnosis of COVID-19 applying Data Mining and Machine Learning Algorithms. **10%** more accuracy is achieved than baseline methods used in reference research paper.
- Due to privacy issues very less data was available therefore dataset was enhanced by combining data from different sources and data augmentation.

Education

Master of Science in Software Engineering San Jose, CA

San Jose State University *Jan. 2021 – Dec. 2022**

Related Coursework: Enterprise Distributed Systems, Data Mining, Enterprise Software Platforms

Bachelor of Technology in Information and Communication Technology Ahmedabad, Gujarat

School of Engineering and Applied Science, Ahmedabad University *Aug. 2016 – May. 2020*

Related Coursework: Advanced Data Structures and Algorithms, Software Engineering, Big Data Analytics

Publications

Research Paper entitled **"Advanced Assistance Services Using Hybrid Ambulance System"** was presented at reputed international, Winter Simulation Conference **(h-index: 57)** at Maryland, USA and Published in **IEEE**.(ieeexplore.ieee.org/AASHA)An Algorithm was designed to minimize the average response time of ambulance to reach to the hospital from accident spot, further reducing the casualty rate. It provided an overall time reduction of approximately 3 minutes with a **97%** survival rate.