HET JAGANI

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SUMMARY

A software engineer skilled in architecting and implementing backend application systems pursuing specialization in Enterprise Software Technologies and Cloud Technologies.

EDUCATION

M.S. in Computer Software Engineering - San Jose State University, California **Jan. 2021 - Dec. 2022**
Courses: Software Systems Engineering, Ent Distributed Systems, Ent Application Development

BTech in Info and Comm Technology - Ahmedabad University, Gujarat **Aug. 2016 - May 2020**
Courses: Software Engineering, Advanced Data Structures & Algorithms, DBMS, Cloud Computing, Computer Networks

TECHNICAL SKILLS

Programming Skills	C, C++, Golang, Java, Javascript, Python, PHP, bash
Web Technologies	NodeJS, React, RESTful APIs, GraphQL
Cloud Technologies	Docker, Kubernetes, AWS, Event Queues, Serverless
Databases	MySql, Postgresql, MongoDB, Redis
Frameworks & Tools	Spring Boot, Jenkins, Git, Ansible, Github CI/CD, NatsIO

WORK EXPERIENCE

Backend Developer: Factly.in (Github) **(Jul 2020 - Jul 2021)**

- Contributed in development of open source Content Management System (CMS) and tools facilitating journalism and fact checking for multiple organisations.
- Assisted in planning of future development of features and integrations for Dega CMS. Tech stack used for building web applications consist of Golang, React, PostgreSQL, Ory Stack (for authentication services), Redis, NatsIO, Docker, GraphQL API.

Bhaskaracharya Institute For Space Applications and Geo-Informatics (Github) **(May 2019 - July 2019)**

- Developed a general-purpose video analytics software leveraging Machine Learning algorithms to perform video processing. The software was build in python with Tkinter framework for GUI and Darknet & Coco models for object Detection.

PROJECTS

- **B.Tech Final Year Project: Vidhyapak, Video Streaming Application**: Online education platform similar to Gyapak file sharing ecosystem adopted by Ahmedabad University.
  - Achieved 20% less latency using Redis for caching API requests, and Hystrix for handling fault tolerance in internal API requests, preventing chained failures.
  - Deployment was done initially on Docker Swarm Cluster, but later was shifted to Kubernetes Cluster on AWS EC2 which improved overall performance by about 25% due to better container networking in Kubernetes.
  - **Technologies Used:** JAVA, Spring Boot, MySQL, Docker, Kubernetes, AWS, XenServer, FreeNas.
- **Cloud Cost Calculator:**
  - Web application to calculate cost summary report of cloud resources in Amazon Web Services. The application provides list of all resources supported by AWS. User can select resources suitable for his/her need and application provides weekly & monthly cost report with an option to download in PDF.
  - **Technologies Used:** Angular, AWS Pricing API, Docker, Ansible, AWS, Bootstrap.
- **COVID CT Scan Diagnosis:**
  - Automated diagnosis of COVID-19 from the CT Scan image of patient's lungs using Data Mining Techniques. Here almost 10% more accuracy than base techniques used in dataset's research paper was achieved.
  - Public COVID CT images dataset is hard to find so two datasets were combined and applied with various data augmentation techniques for better performance.
  - **Technologies Used:** Python, Tensorflow, SKLearn, Numpy, ML Algorithms, PCA.
- **Automatic Toll Collection:**
  - Inspired from current traffic fine collection system in India, an automated IOT based toll collection system was developed, which detects licence plate of vehicle and stores data about toll to be paid by vehicle.
  - **Technologies Used:** Python, RaspberryPI, Flask, MySQL.