

Anvitha Chegu Ashokkumar

Los Angeles, CA, USA | 213-431-9741 | anvitha.ca@gmail.com
linkedin.com/in/anvitha-chegu | http://github.com/CAAnvitha

EDUCATION

University of Southern California, Los Angeles, USA.

Aug 2022-Present

Master of Science, Computer Science

GPA: 3.6/4.0

Coursework: Analysis of Algorithms, Web Technologies, Database Management System, Multimedia System Design

Dayananda Sagar College of Engineering, Bangalore, India.

Aug 2016-Jul 2020

Bachelor of Engineering, Computer Science & Engineering

GPA: 9.45/10.0

TECHNICAL SKILLS

- **Languages:** Python, JavaScript, TypeScript, Java, C
- **Database Technologies:** MongoDB, Firebase, MySQL, NoSQL, Redis, Elastic Search, SQL Server
- **Web Technologies:** React.js, Node.js, Next.js, Redux, AngularJS, Django, Spring Boot, Flask, jQuery, Ajax, PyTest
- **Cloud Platforms:** Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP)
- **Miscellaneous:** Git, Kafka, REST, SOAP, Docker, Kubernetes, Kibana, Cassandra, Machine Learning.

WORK EXPERIENCE

Graduate Research Assistant - USC Annenberg School of Communication and Journalism

Jan 2023-Present

- Built a **NextJS web application** featured in Good Morning America for USC Annenberg Inclusion Initiative depicting diversity in Oscars. Handled the **deployment and monitoring** of the application using **AWS ECS and CloudWatch**.
- Evaluated charting libraries and **implemented 25 statistical charts** for trend display by integrating libraries like **Nivo** and **React-chartjs2**.

Software Engineer - Perfios Software Solutions

Jul 2020-Jul 2022

- Contributed to design and development of **Mediclaime Insurance Tech's microservices architecture**, by incorporating **caching of configuration through Redis** for improved responsiveness, leveraging **Spring state machines** for **transaction life-cycle management** and **Kafka** for **asynchronous processing** of transactions, resulting in a 43% performance increase compared to the monolith architecture.
- Built a **standalone web application using SpringBoot** as part of an OCR pipeline to present structured extracted data to the Data Processing team to alleviate the effort spent in manually verifying scanned medical documents.
- Developed end-to-end features for self-onboarding of new organizations onto the **Cross Analysis Application** using **ReactJS** and **Spring Boot** and thereby **reducing the onboarding time by 35%** compared to manual methods.
- Constructed 8-10 **graphical dashboards** using **Elastic Search** and **Kibana** for overall product performance, efficiency analysis, and monitoring of machine learning models integrated in the product.

Software Intern - Perfios Software Solutions - Spring, MySQL, React

Jan 2020-Apr 2020

- Developed an end-to-end OCR pipeline using **Kafka, Spring Boot, ReactJS, OCR libraries and Minio** for object storage for distributed and asynchronous processing of bank statements, salary slips and medical documents for handling manual insurance claims.
- **Evaluated and integrated Abby and Tesseract OCR Engines** to **extract structured data** from documents and images, with an accuracy of 97% on insurance claim documents, to streamline manual data filling by agents.

ACADEMIC PROJECTS

Semantic Search Engine for Research Papers - Python, Sentence Transformers, PyTorch, FAISS

Feb 2023-May 2023

- Created a semantic search app for Computer Science research papers using abstracts, employing Sentence Transformers and FAISS vector store to scale search
- Fine-tuned Bert-Base-Uncased model on a 1 million paper dataset, resulting in an improved domain-specific sentence transformer model. Utilized FAISS for efficient indexing and clustering of abstract sentence embeddings.

Distributed and Scalable E-Commerce application - Spring Boot, Kafka, AWS, ElasticSearch, Grafana

Oct 2022-Nov 2022

- Implemented scalable e-commerce application using to develop 4 services, with Eureka for service discovery and independent load balancing while ensuring fault-tolerant synchronous communication. Leveraged Keycloak for secure authentication, ensuring authorized access to the microservices cluster through the API gateway.
- Integrated Kafka to enable event-driven processing for the notification service. Implemented monitoring, logging and visualization using Kibana, Elasticsearch, Prometheus, and Grafana. Deployed the application to AWS ECS using dockerization.

Group Video and Audio Chat Application - Python, Django, WebRTC, Redis

Aug 2022-Oct 2022

- Utilized Django Channels in conjunction with WebRTC for end-to-end encrypted peer-to-peer communication for video conferencing. Redis as datastore to handle WebSocket requests for bidirectional communication.
- Integrated Firebase for user registration, authentication and storage of user profiles, call history, chat data, for improved user experience and accessibility.

AWARDS AND HONORS

- 1st Runner up among 52 teams in Actions on Google Hackathon. Created a chatbot to help Indian farmers to better manage crops and plan for planting and harvest season.

Oct 2019