

# Anvitha Chegu Ashokkumar

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## EDUCATION

**University of Southern California**, Los Angeles, USA.

**Aug 2022-Present**

Master of Science, Computer Science

**GPA: 3.7/4.0**

Coursework: Analysis of Algorithms, Machine Learning, Database Management System, Multimedia System Design

**Dayananda Sagar College of Engineering**, Bangalore, India.

**Aug 2016-Jul 2020**

Bachelor of Engineering, Computer Science & Engineering

**GPA: 3.8/4.0**

## TECHNICAL SKILLS

- **Languages:** Python, Java, JavaScript, Golang, TypeScript.
- **Database Technologies:** MySQL, MongoDB, Postgres, Redis, Kafka.
- **Web Technologies:** React.js, Node.js, Next.js, Express.js, Spring Boot, AngularJS, Django, Flask, Figma.
- **Cloud Platforms:** AWS EC2, S3, CloudWatch, App Runner, GCP.
- **Miscellaneous:** Git, Docker, Elasticsearch, OpenCV.

## WORK EXPERIENCE

**Research Assistant Developer - USC in Collab with Adobe** - NextJS, Postgres, Directus, CloudWatch.

**Jan 2023-Present**

- Built a data driven **NextJS** web app to assess, promote inclusivity in the entertainment industry. App received recognition and featured in Talk Show Good Morning America. Handled the deployment and monitoring of the app using **App Runner**, **CloudWatch**.
- Implemented 25 statistical charts for trend display by integrating libraries like **Nivo**, **React-chartjs2**, **React-echarts**.
- Designed front-end internal web APIs, for dynamic data retrieval. Led performance optimizations, staying current with latest NextJS versions, including cache utilization, ensuring loading times, migrating project structure from page to app router for scalability.

**Software Engineer - Perfios Software Solutions** - SpringBoot, MySQL, ReactTS, Kafka, Redis, ElasticSearch

**Jul 2020-Jul 2022**

- Contributed to Mediclaim Insurance Tech's **microservices architecture** by implementing Redis caching for configuration, **Spring state machines** for transaction management, and **Kafka** for asynchronous processing. Achieved a significant 37% performance improvement compared to the previous monolithic 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**, **Minio** for object storage for distributed and asynchronous processing of bank statements, salary slips, 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

**InvoiceNow | Secure Account Management & Invoicing** – Spring Boot, ReactJS, AWS, MySQL

**Aug 2023-Sep 2023**

- Implemented a full-stack web application focused on secure customer account management and invoicing. Used **JWT Tokens** for authentication and role-based authorization, integrated with **Twilio** for 2FA
- Optimized invoice generation with async processing through **Kafka** and storage in **S3**. Containerized both frontend and backend services using **Docker** for deployment.

**WindowShopper | Distributed and Scalable E-Commerce Platform** - Spring Boot, Kafka, AWS, Elasticsearch

**Oct 2022-Nov 2022**

- Designed a scalable e-commerce backend application comprising of four microservices, implementing service discovery using **Eureka** and authentication through **Keycloak**. Implemented Elasticsearch to enable fast and efficient searches.
- Integrated Kafka for order related notifications and designed dashboards for application monitoring utilizing **Prometheus** and **Grafana**

**SoCall | Group Video and Audio Chat** - 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. Leveraged **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

- Member of USC Graduates Rising in Information and Data Science Club.
- 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**