

# ANIRUDH NAMBI

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## PROFESSIONAL EXPERIENCE

### Apple, Software Engineering Intern, Cupertino, CA

Jun 2023 - Sep 2023

- Enhanced Frost automation webtool through the development of **APIs** and integration of **PostgreSQL** with **Django ORM**, significantly improving real-time project collaboration, and workflow efficiency.
- Optimized page load times and user experience by integrating **GraphQL** for seamless data fetching.
- Boosted Frost's responsiveness and scalability by implementing asynchronous task execution with **RabbitMQ** and **Celery**, ensuring efficiency in handling larger project volumes.
- Crafted an extensive suite of **unit tests** using **pytest** for the developed features, fortifying functionality and driving significant enhancements in software quality. This precision-led effort resulted in a 10% reduction in bug reports and an improvement in overall software stability.
- Proficiently led the development of **automation test** suites using the **XCTest** framework in Swift within Xcode for Messages macOS project, resulting in a reduction in manual testing efforts, significantly enhancing project efficiency.

### Virtusa Corporation, Software Engineer, India

Oct 2020 - Dec 2021

- Implemented the Employee Service within a robust Employee management system backend using **Java**, **Spring Boot** **microservices**, and **MySQL** database.
- Designed and built comprehensive **RESTful APIs** for **CRUD** operations on employee data, including filtering by department, role, etc., with data persistence in **MySQL**.
- Ensured data integrity and security through integration with central **authentication** and **authorization** mechanisms.
- Contributed to building a scalable and maintainable service structure utilizing **Spring Cloud** for discovery and configuration.
- Orchestrated an impressive **15%** cost reduction through seamless migration of health data reports from SAS DWH extracts to high-scale SAS 9.4 **Cloud** and **Amazon Redshift**.
- Developed comprehensive **test design** and **attestation** documents, reducing testing time by 10%, while increasing team productivity.

## EDUCATION

### University of California

Master of Science, Computer Science;

GPA-3.75/4.0

Riverside, CA

Sep 2022-Dec 2023

### CVR College of Engineering

Bachelor of Technology, Computer Science, and Engineering;

GPA-8.9/10.0

Hyderabad, India

Aug 2016- Aug 2020

## SKILLS

- Programming Languages & Web Development:** Python, Java, Javascript, C++, C, SAS, PHP, HTML, CSS
- Data & Databases:** Oracle Database, MySQL, SQL, MongoDB, Postgres, Firebase, Hibernate, Kafka
- Machine Learning & AI:** Pandas, Scikit-Learn, Scipy, Numpy, BERT, Keras
- Web & App Frameworks:** Django, SpringBoot, Express.js, React, Node.js, RabbitMQ, GraphQL
- DevOps & Containerization:** Docker, Kubernetes

## PROJECTS

### Advanced Weather Forecasting System (React, FastAPI, PySpark, Amazon S3, Hadoop)

- Engineered a sophisticated online weather forecasting application backend with **FastAPI** on AWS EC2
- Utilized **PySpark** within a **Hadoop** framework to process large-scale weather datasets from **Amazon S3**, enhancing forecast accuracy, and paired it with **React.js** and CSS for an engaging, user-friendly interface.
- Developed a robust **GBT Regressor machine learning** model using PySpark's ML library to predict various temperature metrics, assessing performance with **MSE**, and **R2** metrics.

### Twitter Search Engine(Python,Numpy,Pandas,PyLucene,BERT):

- Engineered an efficient tweet-crawling mechanism using the **Tweepy** library, incorporating an automated script for API rate limit management and data deduplication, significantly enhancing the relevancy and accuracy of search results.
- Our Twitter Search Engine leverages a custom **Lucene** indexing strategy for lightning-fast indexing and retrieval, enabling searches to complete in under **2 seconds** on average.
- Utilizing state-of-the-art NLP models like **BERT** and **FAISS**, we achieve a **25%** increase in search accuracy and relevancy, ensuring users find the most valuable tweets for their needs.

### Secure File Storage with Data Deduplication(HTML,CSS, Java,SHA1, AES,MySQL) :

- Developed a secure file storage system utilizing **AES** encryption and deduplication for efficient storage and bandwidth usage.
- Implemented user **authentication** and **authorization** mechanisms for secure access control.
- Designed and coded **Java Servlets** for file upload, download, and update functionalities.
- Employed **SHA-1** hashing for data integrity and security.

### SeeMore- Enhancing Accessibility for the Visually Impaired (Python, TensorFlow, OpenCV, pyttsx3) :

- Innovated a real-time object detection and labeling system using **TensorFlow** and **OpenCV**, proficiently detecting and classifying objects with proximity estimation and delivering audible descriptions via text-to-speech conversion with the **pyttsx3** library.