ANIRUDH NAMBI

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PROFESSIONAL EXPERIENCE

Apple, Software Engineering Intern, *Cupertino, CA* **Jun 2023 - Sep 2023**

- Implemented **XCUITest** integration into a **Python** UI testing web tool, eliminating dependence on unsupported XCUITests and streamlining UI testing workflows.
- Enhanced Frost 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 - Aug 2022**

- 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 with data persistence in **MySQL**.
- Designed and implemented custom **Role-Based Access** Control (RBA) using **Spring Security**, ensuring only authorized users with appropriate roles could access and modify employee data within the Employee Service.
- Enabled efficient data exploration through **filtering**, **pagination**, and **sorting**.
- 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 troubleshooting and testing time by 10%, while increasing team productivity.

EDUCATION

University of California Riverside, CA
Master of Science, Computer Science; Sep 2022-Dec 2023
GPA-3.75/4.0

CVR College of Engineering Hyderabad, India
Bachelor of Technology, Computer Science, and Engineering; Aug 2016- Aug 2020
GPA-8.9/10.0

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.