ARAVIND BALAKRISHNAN

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EDUCATION

University at Buffalo, The State University of New York   **August 2021 – February 2023**
Master of Science in Computer Science   Buffalo, New York
Anna University   **August 2016 – May 2020**
Bachelor of Engineering in Computer Science   Chennai, India

SKILLS

Languages: Python, SQL, React, Java, , JavaScript, AngularJS, TypeScript, NodeJS, HTML, CSS, C, C++
Tools & Frameworks: Linux, Git, Github, Flask, Docker, Springboot, Unix, Django, Rest API, Kafka
Databases: MySQL, PostgreSQL, Oracle DB, MongoDB, Hive
Platform: Visual Studio Code, PyCharm, Postman, Arduino, Jira, Confluence, RasberryPi, Apache Netbeans
Others: Agile/Scrum, SDLC, Tableau, Tomcat, Nginx, Swagger, Netlify, Wireshark, Netbeans, Heroku, Digital Ocean

EXPERIENCE

IpserLab LLC   **June 2022 – August 2022**
Software Engineer Intern   Mountain View, CA
- Developed User Registration module for marketplace website using React and PostgresDB to handle 20,000 users.
- Implemented a messaging platform using Python, Flask, SocketIO to enable user communication for 10,000 users.
- Designed REST APIs on Java for 3rd party developers to connect with marketplace, server hosted on tomcat.
- Managed 6 Junior interns by setting goals, assigning tasks and monitoring projects.

Qube Cinema   **September 2020 – March 2021**
Software Developer Intern   Chennai, India
- Built REST APIs with Python and Flask to run regression tests on 2 products, build reports and email results.
- Designed 21 automated test suites to validate APIs, back-end and front-end components.
- Conducted code reviews with the guidance of 2 Senior SDE's and gained experience in developing scale-able solutions.
- Collaborated with agile team of 5 and delivered high impact features as a priority to customers.

ACADEMIC PROJECTS

Twitter Search Engine | Python, AWS, AngularJS, Flask, Apache Solr   **February 2022 – May 2022**
- Collected 60,000 COVID related tweets from important government handles using Twitter's APIs and cleaned tweets to reduce noise, improved inverted search index of the tweets using Solr on AWS.
- Calculated TF-IDF score with DAAT, evaluated different IR system models and improved results using BM-25 by 70%.
- Deployed an interactive search engine on COVID related tweets using Angular and Flask.
- Visualized all country, language wise distribution of tweets and performed sentiment analysis of tweets and replies.

Helpt | React, NodeJS, TypeScript, PostgreSQL | **Masters Project**   **February 2022 – April 2022**
- Created a mobile application using React for 1500 users to connect on B2C marketplace.
- Integrated Stripe payment system with the marketplace for seamless transactions between users and engineered a referral system to generate new users by rewarding existing users with 10 credits.
- Implemented a Geo-search module to connect users, using user-coordinates and preferred distance up to 100 miles.

Text Chat Application | C, TCP, GCC   **February 2022 – April 2022**
- Developed a client-server text-chat model which supports server interactions with 5 clients through TCP.
- Compiled the program using the GCC environment (GNU Compiler Collection) in 15 seconds.
- Model operates on 5 client servers and 1 host server for server-client interactions.

Publisher Subscriber System | Docker, Python, Flask, Kafka, HTML, CSS   **September 2021 – December 2021**
- Created a centralized publisher subscriber model with 3 broker nodes for 3 publishers and 10 subscribers.
- Defined two important functions, publish and notify for all publishers and subscribers.
- Architectured a 3-10 Publisher Subscriber system and deployed on Docker.

Question and Answer Portal | GO, PostgreSQL   **September 2021 – November 2021**
- Proposed a database model to provide a platform for users to post questions and get answers.
- Populated PostgresDB using GO to add 10,000 message threads in the database.
- Application consists of 25 different communities like python, photography, cooking as topics for discussion.

ADDITIONAL EXPERIENCE

Forum for Economic Studies by Engineers - Vice President   September 2019 – May 2020
Smart India Hackathon - Finalist   January 2019 – March 2019