MOUNICA REDDY KANDI

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EDUCATION

Master of Science in Software Engineering **Jan 2022 – Dec 2023**
San Jose State University, San Jose, CA, USA
Relevant Courses: Cloud Technologies, Software System Engineering, Data Mining, Internet of Things, Software Quality Assurance and Testing.

Bachelor of Technology in Computer Science and Engineering **Aug 2015 - May 2019**
Teegala Krishna Reddy Engineering College, Hyderabad, Telangana India
Relevant Courses: Data Structures and Algorithms, Object Oriented Programming, Design and Analysis of Algorithms, Database Management Systems, Computer Networks.

TECHNICAL SKILLS

Programming Languages	: Python, Java, JavaScript, C, C++, HTML, CSS
Web Technologies	: React, Angular, NodeJS, Redux, Flask, Bootstrap
Databases	: MySQL, MongoDB, PostgreSQL, Redis, Elasticsearch
Cloud Technologies, Cloud Native and DevOps	**:** AWS Cloud (EC2, IAM, S3), Jenkins, Chef, Terraform, Docker, Kubernetes
Tools	**:** VS Code, GitHub, Eclipse, Jira, Apache Kafka, Swagger, Postman, Wireshark

PROFESSIONAL EXPERIENCE

Tata Consultancy Services, Hyderabad **Jan 2020 – Jan 2022**
Software Engineer

- Implemented a web-based customer support automation tool, streamlining the support workflow and achieving a **50% reduction** in manual data-entry time.
- Developed the web application using **React** for the frontend and **Node.js** for the backend, enabling support engineers to efficiently review auto-filled forms, access suggested articles, and retrieve relevant customer details.
- Designed and implemented a secure authentication and authorization system using **OAuth 2.0** and JSON Web Tokens (**JWT**), while also adhering to **RESTful API** best practices to ensure secure access to the application and its data.
- Employed **Redux** for state management, ensuring seamless data flow and efficient handling of application states within the customer support tool.
- Implemented a **role-based access control** (RBAC) system, ensuring data privacy and security by granting appropriate access to support engineers, team leads, and managers.
- Engineered **asynchronous** API integrations with **webhooks**, facilitating immediate notifications post ML-driven voice-to-text conversions, optimizing support efficiency.
- Implemented **Test-Driven Development** (TDD) methodologies in the creation of backend services, fostering a development environment conducive to producing error-minimized code.

Associate Software Engineer

- Developed a Web application that monitors all the modifications done in the probe rules and reports the changes to the developers and the clients.
- Implemented **database indexing** and **query optimization** strategies for rapid retrieval and processing of support-related data.
- Used **Bootstrap** responsive techniques to build an interface for multiple screen resolutions.
- Created **Python scripts** to perform automated server health checks and monitor disk space utilization, ensuring the continuous availability and **optimal performance** of critical systems.
- Developed custom **Jenkins** pipeline scripts to build and test the **Docker** images, push them to a Docker registry, and deploy them to the testing environment.
- Followed **Agile Methodologies**, performed code reviews, and ensured clean code practices at every step.

Machine Learning Intern | Verzeo, India **May 2018 - Jun 2018**

- Mined, analyzed, and preprocessed raw data to support customer requests, and issue analysis, including reconciliation of submissions.
- Applied predictive analysis methods such as correlation, linear regression, and ANOVA to examine natural patterns and relationships that occur within the data.

PROJECTS

An Autonomous Vehicle Cloud Application [React, NodeJS, ExpressJS, SpringBoot, MySQL, MongoDB]

- Developed a **Software as a Service (SaaS)** application for renting Autonomous Vehicles to commute from one place to another which was deployed on Amazon Web Services (AWS).

Stack Overflow Clone [React, NodeJS, ExpressJS, Kafka, Redis, MySQL, MongoDB]

- Designed a 3-tier distribution application with **MERN** and **Kafka** and deployed it on **AWS EC2** instance using docker with load balancers and tested the system with 10k simultaneous reviews.
- Dedicated **S3 image server** and **Redis Cache** to increase system performance by 70%.

Drowsiness Detection System using OpenCV Face Recognition [OpenCV, Python (NumPy package)]

- Created a Webcam-based system to detect driver's fatigue from the face image. Utilized **image processing** and machine learning techniques to quantify facial landmarks, eye aspect ratio, and position of the head of the driver.