KARRI SAI VENKATA REDDY

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EXPERIENCE

Member of Technical Staff(MTS)
Vymo

📅 May 2023 – Present   📍 Bangalore

- Completed Proof of Concept (POC) for AI-driven Copilot development, validating MySQL, Metrics payload, Elasticsearch query generation ensuring 80% accuracy in answering user questions.
- Designed and Created Copilot microservice, including database design and Low-Level Design (LLD), utilizing Python FastAPI framework for robustness and performance.
- Integrated Microsoft Guidance LLM framework and optimized Milvus vector database for enhanced document retrieval, improving overall system efficiency.
- Deployed Copilot service across client environments using Docker, optimizing resource utilization through cost analysis, and leveraging open-source LLMs like Llama 2 and Mistral for tailored solutions.
- Implemented OLAP data warehouse for KPI Queries, migrating MongoDB data to ClickHouse via Kafka Connect Debezium connectors, ensuring smooth transition and 100% data integrity.
- Integrated Superset with ClickHouse, enabling dashboard creation for diverse KPIs, enhancing data visualization and analytics capabilities. Performed JMeter analysis to optimize query performance by 5 times.
- Designed ClickHouse schemas ensuring data consistency and reliability, while optimizing performance with techniques like materialized views, Bloom filters, and indexing to get throughput of 20k RPM with high concurrency.

SWE Intern
Vymo

📅 January 2023 – April 2023   📍 Bangalore

- Architected and Constructed pipelines for retraining and monitoring ML models, enhancing user attrition prediction, product recommendation systems resulting in a 30% reduction in customer churn and a 15% increase in revenue from personalized recommendations.
- Orchestrated transition from static values to Airflow variables, enabling greater flexibility and scalability across workflows.
- Conducted rigorous feasibility analyses on user attendance data, generating insightful datasets to evaluate machine learning model performance and improving accuracy by 5%.
- Developed Streamlit applications tailored to business needs, showcasing the efficiency of ML allocation algorithms and visualizing KPIs related to each user against a lead, enabling effective data-driven decision-making.

Summer Research Intern
NIT Silchar

📅 May 2022 – July 2022   📍 Silchar

- Engineered a sophisticated license plate detection solution by integrating OpenCV and EasyOCR, enabling precise identification and recognition of license plates in images with a remarkable 95% accuracy rate.

PROJECTS

Music Genre Classification

- Acquired GTZAN dataset from Kaggle and built various machine learning and deep learning methods for multi-class classification.
- Attained a peak accuracy of 92% using Neural Networks and 85% with K-Nearest Neighbors (KNN) techniques.

COVID-19 detection in X-ray images

- Leveraged 2500 samples from Keras to train a Convolutional Neural Network (CNN) model. Achieved remarkable accuracy of 96% by integrating SVM with the CNN approach.

SKILLS

C/C++   Python   JavaScript   Nodejs   FastAPI   MySQL   MongoDB   Elasticsearch   Clickhouse   Docker   kafka   Airflow   Scikit-Learn   Machine Learning   OpenCV   Generative AI   Streamlit

EDUCATION

B.Tech in Electronics and Communication Engineering
NIT Silchar

📅 July 2019 – May 2023   CGPA:8.43

Class XII
Sasi New Gen Jr. College, Velivennu

📅 June 2017 – May 2019   Marks: 983/1000

COURSEWORK

- Data Structures and Algorithms
- Object- Oriented Programming
- Database Management Systems
- Computer Networks

CODING PROFILES

→ **Leetcode**   → **Codeforces**   → **HackerRank**