Sooryaprakash R

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EDUCATION

Computer Science and Engineering (B.E), Anna University Aug 2017 – May 2021 | Chennai, India
Courses: Programming & Data Structures, Software Engineering, Machine Learning, Artificial intelligence, Design & Analysis of Algorithms, Database Management Systems
GPA: 8.87/10

SKILLS

Programming Languages
Python, Java, C++, SQL, Shell

Machine Learning, Deep Learning and GenAI
Regression Analysis, Time-Series Forecasting, Recurrent Neural Networks (RNNs), Large Language Models (LLMs), NLP, Model Evaluation, Hyperparameter Tuning, Deployment (Batch & Real-time), Prompt Engineering

Data Engineering and Big Data:
Apache Spark, Hadoop, Kafka, Redis, PostgreSQL, MongoDB

Specializations
Software Engineering, Machine Learning, Design Patterns, System Design, Data Structures and algorithms, Software Development Life Cycle (SDLC)

Web and API Technologies
Flask, FastAPI, Django, REST APIs, Swagger

Libraries and Frameworks
Scikit-learn, TensorFlow, PyTorch, Keras, Hugging Face, Streamlit, Pandas, NumPy, Prophet, Spacy, LangChain, ChromaDB, SQLAlchemy, Pyspark, Pytest, Cerberus, Jupyter Notebook

Cloud and DevOps
AWS (EC2, S3, SageMaker), Docker, Kubernetes, Jenkins, CI/CD Pipelines, Git

Practices & Methodologies:
Agile (Scrum), Jira, Version Control, MLOps, DevOps, Cross-functional Team Collaboration, Scalable Architecture Design, Enterprise Development Practices, POC Development

PROFESSIONAL EXPERIENCE

Kaleris

Software Engineer - Machine Learning Oct 2022 – present | Chennai, India
- Enhanced the No Code Auto ML framework to accommodate a wide range of **machine learning and deep learning algorithms**, optimized its architecture for scalability, and successfully deployed it in large-scale production environments.
- Collaborated with cross-functional teams to conduct in-depth historical data analysis and engineered **recurrent neural network models** for precise terminal occupancy prediction resulting in a notable 20% efficiency improvement and optimal resource allocation.
- Introduced features like **dynamic filtering and task monitoring** into the framework, resulting in heightened customer satisfaction.

Associate Software Engineer - Machine Learning Jul 2021 – Sep 2022 | Chennai, India
- Developed a **Configuration driven No Code Auto ML framework**, automating machine learning phases, resulting in faster model generation and reduced manual work.
- Integrated the framework with a **microservices architecture**, enhancing operational efficiency through streamlined service orchestration and significantly boosting scalability, thus aligning with the principles of decoupled and containerized services.
- Implemented advanced machine learning models that accurately predict the remaining useful life of cranes, resulting in a 30% reduction in maintenance costs.

Associate Software Engineer Intern Feb 2021 – Jun 2021 | Chennai, India
- Designed a robust **data pipeline for data extraction** from the organization's central database and implemented **ETL processes** to curate datasets for solving diverse real-world use cases utilizing machine learning techniques.
- Contributed to the implementation of a **multitenant architecture** within the backend of the business intelligence report generation tool, resulting in resource-efficient operations, improved overall efficiency, and the enforcement of robust security measures

PROJECTS

RAG AI Assistant (Python, Django, REST API, Langchain, HuggingFace, Postgres, Docker)
- Developed a **Retrieval Augmented Generation service (RAG)** that understands the context of the documents and answers related questions.
- Evaluated the performance of the service with RAGAS metrics.
- Implemented advanced features such as PII masking, Hybrid search, and contextualization of chat history to enhance usability and accuracy.

FilmBuddy - A Film Recommendation Engine (Python, Flask, REST API, Postgres, Docker)
- Developed a robust **REST API application** to provide film recommendations using MovieLens data, ensuring scalability and long-term maintainability.
- Implemented **content-based and collaborative filtering techniques** to boost the precision of movie suggestions, delivering personalized film recommendations for users.
- **Dockerized** the application to ensure consistent deployment across diverse environments and deployed it on an AWS EC2 instance.

Midday Meals Monitoring System (Flutter, Python, Django, REST API, Postgres)
- Designed and implemented a cross-platform mobile application, incorporating an **object recognition machine learning model** to generate daily reports for the midday meals scheme in schools.
- Implemented automated alerts for authorities in cases of discrepancies, ensuring **data accuracy and timely response**.

AWARDS

Generative AI Hackathon Winner, Kaleris May 2024

Smart India Hackathon 2020 Winner, Ministry of Education - Government of India Aug 2020

Best Innovation Award, Rajalakshmi Institute of Technology - Chennai Jul 2018

LEADERSHIP EXPERIENCE

Association of Computer Engineers, Vice President Jun 2020 – Jun 2021 | Chennai, India

National Service Scheme, Student Co-ordinator Jul 2017 – Apr 2018 | Chennai, India