Name: Thilak Murugan Rajsekar

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About: Motivated Generative AI developer with over 3+ years of experience in building and deploying data-driven models into production. Experienced in Python, LLMs, machine learning, artificial Intelligence, deep learning, data analysis, and cloud computing. Recently graduated with a Master's in Data Analytics, seeking a Gen AI Developer role to leverage AI and ML skills in developing innovative solutions and contributing to cutting-edge projects.

TECHNICAL SKILLS

Programming: Python, R, C, C++, Julia, Java, HTML, CSS, JavaScript

Databases: OracleDB, MongoDB, MySQL, Azure DB, MS SQL Server, Chroma DB, FAISS, Weaviate
Framework: LangChain, LlamaIndex, Streamlit, TensorFlow, Pytorch, Keras

Library: Transformers, scikit, matplotlib, Hugging Face

Tools: Azure Data Factory, SAP, Azure Databricks, Snowflake, Airflow, Kafka, dBT, AWS, PowerBI,
Relevant Skills: Data Mining, Data Warehousing, Data pipelining, Adv Data Structures, Data Visualization, Statistical Analysis, Big Data

PROFESSIONAL EXPERIENCE

Generative AI Developer | University of Central Florida Oct 2023 – Present

• Developed a state-of-the-art chatbot application using OpenAI's GPT 3.5 model and Llama-2 language model and embedding capabilities. • Leveraged ChromaDB vector store to improve retrieval and contextualization, reducing average response time by 30%. • Implemented RAG (Retrieval-Augmented Generation) methodology to create a contextual & adaptive chatbot, improving conversational accuracy by 20%. • Leveraged the Python Langsmith library to trace model performance, identify optimization opportunities, and continuously improve the chatbot's conversational abilities, leading to a 25% increase in the accuracy of user query resolution. • Designed and deployed the chatbot application on the Streamlit platform, providing a user-friendly interface and seamless deployment experience. • Collaborated cross-functionally with business stakeholders to understand requirements and translate them into conversational AI solutions, resulting in a 40% increase in customer engagement. • Introduced best practices in version control using Git, enhancing code traceability and collaboration among team members, reducing development time by 20%. • Documented the entire development process, including model training, optimization, and deployment, to enable knowledge sharing and future scalability.

Machine Learning Teaching Assistant | University of Central Florida Jan 2023 – Aug 2023 • Instructed and mentored more than 40 Graduate Data Analytics students in creating machine learning projects from scratch using Python. • Conducted one-on-one virtual training sessions to support students, resulting in substantial enhancements in their academic performance.

Data Analytics Engineer | Covalensedigital July 2019 – Nov 2021 • Performed end-to-end data tasks including extraction, transformation, and loading (ETL) leveraging Azure Data Factory to prepare high-quality datasets for analysis. • Conducted extensive exploratory data analysis (EDA) to identify key patterns, trends, and insights within complex datasets, utilizing Azure Synapse Analyticsfor data processing and visualization. • Developed customer segmentation models using Support Vector Machines (SVM)and t-SNE (t-Distributed Stochastic Neighbor Embedding), deployed on Azure ML, to

improve targeting and personalization, leveraging scikit-learn and TensorFlow. • Optimized SQL queries by leveraging techniques such as indexing, partitioning, and query plan analysis, leading to a 30% reduction in query execution time. • Collaborated cross-functionally with business stakeholders to understand requirements and translate them into actionable data science solutions, deploying models using Azure MLOpsfor seamless CI/CD. • Optimized model performance through iterative testing, feature engineering, and hyperparameter tuning, achieving a 25% increase in segmentation accuracy. • Documented model development processes and created user-friendly dashboards using Power BI and Tableau to enable self-service reporting for business users.

Data Integration Analyst | Deloitte Feb 2019 – Jul 2019 • Deployed SAP CPI mappings to integrate and migrate banking/financial data from over 10 sources, by extracting data with REST APIs. • Designed and monitored 100+ data models and data pipelines, ensuring consistent data availability, validity, and reliability. • Utilized SAP CPI to execute 50+ secure micro service ETL processes, seamlessly transferring data between on-premises systems, data mart and cloud.

PROJECT EXPERIENCE

Personalized Conversational AI chatbot 2024 • Developed a personalized conversational AI assistant chatbot leveraging Cohere Embed Light, OpenAI embeddings, and FAISS vector database for language modeling, context, and retrieval, achieving 85% user satisfaction. • Implemented RAG (Retrieval-Augmented Generation) methodology to create a contextual & adaptive chatbot, improving conversational accuracy by 20%. • Deployed the chatbot solution on the Streamlit platform, providing a user-friendly interface for cross-platform accessibility. • Integrated the LangChain framework to enhance the chatbot's conversational capabilities, and utilized LangSmith for training and evaluation, leading to a 15% increase in user engagement.

CERTIFICATIONS

Generative AI Professional (1Z0-1127-24) – Oracle Certificate 2024

Microsoft Azure Data Fundamentals 2023

SAP Cloud Platform Integration Certificate – SAP 2020

EDUCATION

Master of Science in Data Analytics (3.9 GPA) | University of Central Florida Aug 2021 – Aug 2023
Bachelor’s in Computer Science | PSG College of Technology Jul 2016 – Jun 202

Sports:

Thilak is a sports person and plays football and cricket.

Thilak is a Football player, played for state level.

Thilak is a Cricket played for district team.