Generative AI Scientist

Parthiban Ravichandran

PR15UY, 35 Caroline Street, Preston, Lancashire, UK

Mobile | Mail | LinkedIn | GitHub | Portfolio

PROFILE

Results-oriented technologist with 3+ years in SAP BASIS and a Master's in Data Science. Specializes in AI/ML, including deep learning, NLP, and computer vision. Expertise in designing and managing AI solutions, bridging business and technical needs, and driving technology adoption. Strong interest in generative AI and proven success in translating complex concepts for diverse audiences.

EDUCATION & QUALIFICATIONS

University of Central Lancashire - Master`s in Applied Data Science **Sept'22 - Aug'23**

- **Grade**: Merit
- **Coursework**: Research Methods, Programming with Data- Python and R (Hands-on), Artificial intelligence and MachineLearning, Internet of Things, Visual Information Processing, Big Data Analytics and Visualization.
- **Dissertation:** Multimodal Emotion Recognition using Facial Expressions and Voice Cues**: -** A website for recognizingmultimodal emotion recognition during behavioral interviews. (Distinction)

Rajalakshmi Engineering College - Bachelor of Engineering in Computer Science **Aug'15 - Apr'19**

- First class with Merit (7.7/10 CGPA)

SKILLS

Python, Machine Learning & Deep Learning Algorithms , NLP (NLTK, RNN), Computer Vision (Transfer Learning techniques, OpenCV, MediaPipe), Cloud Computing (AWS, Azure), Data Analysis (NumPy, Pandas), Data Visualization (Matplotlib, Seaborn), MLOps (Docker, CI/CD Pipelines), Databases (MySQL, MongoDB), Generative AI (Langchain, RAG, AI Agents), Fine Tuning LLM's (LoRa, QoRA, Bitwise Quantization), Streamlit.

WORK EXPERIENCE

SAP Basis Consultant | TATA CONSULTANCY SERVICES, Bangalore, India **June'19 to Aug'22**

- Led upgrades for SAP NetWeaver, EHP, S4HANA, and BASIS for clients like SAP-SE and SAP Labs India, improving efficiency by 35%.
- Executed Cloud, On-premise release and Support pack upgrades, meeting deadlines, ensuring system reliability, and cutting troubleshooting time by 20%.
- Managed SAP tickets efficiently utilizing DLM and ServiceNow (GLDS) tools, resulting in a 40% reduction in development cycle times and a 25% increase in project delivery speed, saving 100 hours per project.
- Executed over 100 bulk Support Pack and Hotfix upgrades for SAP systems, ensuring 24/7 support and achieving a 30% reduction in system downtime alongside performance enhancements.
- Maintained a 95% customer satisfaction rate by effectively resolving intricate technical challenges, such as addressing dependencies in support pack upgrades, ensuring seamless system enhancements and minimizing disruptions.

PROJECTS

Multimodal Emotion Recognition Using Facial Expressions and Voice Cues **May'23 to Aug'23**

- Developed an AI-powered Multimodal Emotion Recognition System, transforming candidate assessment with real-timeanalysis, boosting hiring accuracy by 30%.
- Implemented a custom deep learning architecture (Bi-LSTM, CNN), achieving a 25% accuracy increase over traditional methods for advanced text and facial expression analysis.
- Leveraged Media pipe for robust facial tracking, demonstrating a 100% efficiency gain over Haar Cascade.
- Designed a user-friendly web interface (Streamlit) and deployed in Docker containers for seamless portability, streamlining development and deployment with a CI/CD pipeline on Microsoft Azure.

Smart ATS | Live Link

- Developed a Smart ATS web application using Streamlit and Google's Gemini Pro AI model to streamline the hiring process and enhance efficiency for candidates.
- Enabled resume fine-tuning against job descriptions, boosting candidate confidence and increasing interview call success rates by 80%.
- Enhanced evaluation accuracy by identifying missing keywords and promptly addressing candidate inquiries.

Advanced Document Question-Answering System | Live Link

- Developed a Streamlit web application leveraging Google's Generative AI Embeddings and Groq's LPU inference engine, achieving a 1.5x increase in response time for question-answering from uploaded PDF documents.
- Implemented custom prompt templates and provided access to a variety of Groq open-source models, enhancing tailored question-answering capabilities.
- Utilized the RAG (Retrieval-Augmented Generation) approach alongside FAISS vector DB for efficient searches, ensuring scalability and contextually nuanced responses while enhancing reliability and trustworthiness.
- Integrated with Langsmith for log monitoring, cost optimization, and performance tracking to enhance deployment management and efficiency, resulting in a 25% increase in operational efficiency.

AI-Powered Research Assistant Using Agents | Live Link

- Crafted a tailor-made web application focused on aiding research aspirants, effectively reducing search time by 90%.
- Facilitated custom URLs support and preserved conversation history, fostering a seamless user experience while empowering adaptable and user-centric responses through custom prompts.
- Integrated the concept of AI agents to iteratively refine interactions, achieving a 70% increase in search efficiency by selecting and optimizing the most relevant responses, ensuring valuable insights for users.

SQL Chat Assistant with Multi-Database Support | Live Link

- Developed a web application that reduced data retrieval time by 80% by enabling natural language SQL queries across multiple databases, making it accessible for non-technical users during urgent needs when relevant engineers are unavailable
- Utilized GPT and Groq Models for faster inferencing and handling complex tasks, achieving a 70% increase in accuracy through Chain of Thought prompting and Few-Shot Learning, ensuring users get precise answers to their queries.
- Implemented multi-database connectivity, streamlining data analysis and saving up to 50% of the time for business professionals, allowing them to obtain desired results efficiently.

PUBLICATION

ADVANCES IN SMART SYSTEM TECHNOLOGIES **April'19**

- Successfully submitted and presented my Bachelors' final year project in the field of Deep Learning at the Advances in Smart System Technologies conference hosted by Vel Tech Institutions, India.
- The project titled "Sensible Autonomous Machine Using Deep Learning and Convolutional Neural Networks" was selected for publication and is now available on Springer Publication.