DILLIGANESH D

9360539284|Portfolio|dgvishal0603@gmail.com| linkedin/dilliganesh |github/Coolcoder009

Education

RMD ENGINEERING COLLEGE Chennai, Tamil Nadu

Bachelor of Computer Science & Engineering November 2020 – May 2024

Relevant Coursework: Introduction to Java, C programming, Machine Learning, Deep Learning, Basics of SQL, Python, Fundamentals of Database Management System, Object Oriented Programming.

Work Experience

Machine Learning Engineer,Constient Global Solutions January 2024 – Present

- Spearheading a project that integrates FastAPI, MediaPipe, and keypoint-based rendering to enhance communication access for the deaf-mute community. Built a real-time pipeline to extract and render 2D hand keypoints for sign language gestures with improved system responsiveness.
- Produced four distinct machine learning prototypes aimed at solving current industry obstacles that resulted in enhanced interdepartmental collaboration metrics measured through increased project approval rates from stakeholders during quarterly assessments.
- Worked with Docker to containerize and deploy AI/ML models, streamlining model portability and ensuring consistent performance across environments.
- Proficient in deploying applications on Vritual Machines using SSH tools like putty.

Technical Skills

- **Languages**: Python, Java, C, SQL, JavaScript(Basics).
- **Technologies & Frameworks**: Tensorflow, Pytorch, Langchain, RAG, Numpy, Pandas, Scikit-learn, Keras, Git, HTML, CSS, FastAPI, Streamlit, Swagger, Postman, GCP(Basics).
- **Models & Algorithms:** Supervised and Unsupervised algorithms, CNN, RNN, LSTM, Transformers.

Projects

- **AI Integrated Document Management System:** Built an AI-powered document management system leveraging Tesseract OCR and PyPDF for high-accuracy text extraction (95%) from scanned and digital PDFs. Integrated LLMs via FastAPI to deliver context-aware chatbot responses.
- **Sign Motion Regenerator:** Developed a real-time system using MediaPipe for extracting 2D hand keypoints and rendering sign language gestures. Integrated merge control logic to handle sequential gesture regeneration, significantly reducing rendering latency and improving user interpretability.
- **Speech Integrated Medical Chatbot:** Developed a speech-integrated medical chatbot with multilingual support using Gemini for Tamil responses and Qwen for general queries. Implemented Retrieval-Augmented Generation (RAG) for accurate medical insights.
- **Central LLM**: Designed and implemented a token-based request management system for LLAMA 3.2 model deployment on virtual machines, optimizing load balancing and improving throughput while reducing server resource consumption during peak demand.

Achievements

- **Best Teamwork Recognition**: Honored by the organization for outstanding collaboration and contribution to a product initiative, awarded as part of the top-performing team.
- **IBM Certified AI Engineer**.
- **Academic Excellence**: Secured Top 10 position in the CSE Department and recognized with a merit award for outstanding academic performance.
- **Coding Competition:** Secured second position in coding competition conducted at VIT'2022.
- **SkillRack Excellence:** Achieved one among top 10 position in SkillRack platform in CSE Department (2020–2024).

Reference : Sanjeev Tripathi – Head of AI, Constient Global Solutions |Linkedin