JASWANTH SABBINENI

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EDUCATION

Kalasalingam University *Tamil Nadu, India*
Bachelors in Computer Science & Engineering (AI-ML specialisation) *2021 - 2025*

SKILLS

Programming Languages: C, Python, Java, Arduino
Frameworks/Libraries: Scikit-Learn, Mediapipe, OpenCV, Beautiful Soup, ROS, Tensorflow, Keras, PyTorch, Numpy, Pandas, Openvino, SciPy, Matplotlib, Torch, Seaborn, Django, MongoDB, Neural Networks, Kernels, CNN, Langchain, Chainlit, Huggingface, Docker, Ultralytics
Interests: Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Artificial Intelligence, Robotics, Generative AI, LLMs, Software Development, Azure/AWS Deployments

WORK EXPERIENCE/PROJECTS

Diebold Nixdorf (Gen-AI Intern) Sep'24 - Present

- Optimized the Advanced RAG pipeline, reducing latency by 67% and improving accuracy from 77% to 89%.
- Built a customized Vision RAG pipeline using KerasOCR and the LLaMA 3.2 3B model.
- Designed and developed a compact-sized LLM from scratch using Transformer architecture and trained it on a proprietary dataset.
- Created a vector database from scratch tailored to a specific use case for efficient data retrieval and storage.
- Implemented a LangGraph-based agentic flow to automate Jira user story creation and test case generation using the LLaMA 3.2 3B model.

Reliance Jio (Gen-AI Intern) May'24 - Aug'24

- Leveraged advanced LLMs (Mistral, LLaMA, Azure OpenAI, Nvidia Nemo) to extract corporate entities from news articles.
- Converted entities and articles into dense vector embeddings and stored them in a high-dimensional vector database.
- Developed a RAG system to query the database and retrieve relevant articles based on vector similarity.

MulticoreWare Inc. (ML Research Intern) Aug'22 - Jun'23

- During my internship, we worked on sensor fusion for autonomous vehicles, using the COCO dataset for image data.
- With a CNN model and Python libraries like OpenCV and Mediapipe, We integrated data from multiple sensors. Our model, built with Keras, PyTorch, and CUDA, achieved an impressive 89.27 accuracy in enhancing autonomous vehicle decision-making.

IBM National Level Hackathon (Prize: 1 Lakh Rupees) *KARE, Krishnankoil*
Content Moderation Extension for All Platforms *Dec 2023*

- Participated and emerged as the 1st prize winner in the IBM National Level Hackathon.
- Developed a versatile Google Chrome extension with cross-platform functionality, automatically blurring adult content to enhance family-friendly browsing experiences.

ACHIEVEMENTS

- Winners - IBM National-Level Hackathon - 2023
- PATENT - Tuning Genre Frequency Recognition [Filed, No. 202241055462A] - 2022
- Runner-up - IBM Project Expo - 2022