ASHOK HELAN BRIJESH

Portfolio
AI / Machine Learning Engineer
Kanyakumari, Tamil Nadu, India, 629151
ahbrijesh2004@gmail.com | LinkedIn | GitHub | +91 63846 65931

Early-Career AI/ML Engineer with hands-on experience building and deploying deep learning models for computer vision, NLP and LLM-powered RAG. Proficient in Python, TensorFlow, and Scikit-learn, with Hands-on experience in ML pipelines and REST API deployment.

SKILLS

Programming Language:
- Python, Java, C

Core AI / Machine Learning:
- TensorFlow, Keras, Scikit-learn
- CNN, RNN, LSTM, Transformers
- Computer Vision, Natural Language Processing
- LangChain, Ollama, Vector DB (FAISS)

Model Development & Deployment:
- Data Preprocessing, Feature Engineering, Model Training, Evaluation
- Flask, REST APIs, Docker, Kubernetes

Data & Engineering Tools:
- NumPy, Pandas
- MySQL, MongoDB
- Git, GitHub, Jupyter Lab

Additional Experience:
- KNIME (Level 3 Certified)
- SAP ABAP (Internship Exposure)

PROJECTS

Audit RAG System | LangChain, Ollama, FAISS
- Built a Retrieval-Augmented Generation (RAG) system to answer audit-related queries using official audit manuals.
- Implemented semantic retrieval with FAISS and nomic-embed-text embeddings, integrated with a local Phi LLM via Ollama.
- Achieved low-latency, context-grounded responses, with retrieval and inference performance dependent on local system resources.

Suicide Prevention Chatbot | LSTM, DialoGPT, Flask, React
- Fine-tuned a transformer-based conversational model (DialoGPT) for empathetic response generation.
- Implemented NLP preprocessing and sequence modelling for chatbot inference.
- Built and deployed the chatbot using a Flask API backend and React frontend.

Emotion Detection System | CNN, RNN, TensorFlow, Docker, Kubernetes
- Designed and trained CNN and RNN models for multi-class emotion detection across the end-to-end ML pipeline.
- Achieved 91% accuracy through architecture tuning and training optimization.
- Compared CNN and RNN architectures to analyse learning behaviour, convergence, and inference efficiency.
- Deployed the model using Docker, Kubernetes, and Flask REST APIs with health monitoring.

INTERNSHIPS

AI Intern | IPCS Global Solutions Pvt. Ltd.
November 2025 – Present
- Completed hands-on, industry-aligned training in Data Science, Machine Learning, and Deep Learning using real-world datasets.
- Built and evaluated ML models (Regression, Decision Trees, Random Forest, SVM, KNN) and DL models (CNN, RNN, LSTM) using TensorFlow/Keras.
- Performed data preprocessing, feature engineering, and exploratory analysis using Python, NumPy, Pandas, and SQL.

AI Intern | AICTE Innovative Intern
August 2024 – November 2024
- Engineered an end-to-end face recognition attendance system using TensorFlow, Keras, and Flask.
- Trained and evaluated CNN models achieving 87% accuracy, improving reliability of automated attendance.
- Automated attendance workflows, reducing manual effort by 60%.
- Optimized inference pipelines to enable near real-time multi-person recognition.

Audit Automation & Analytics Intern | Aamin Data Solutions
May 2025 – October 2025
- Designed and deployed 10+ KNIME workflows to automate audit checks, anomaly detection, and data validation tasks.
- Streamlined audit analysis by automating repetitive processes, significantly reducing manual review time.
- Built a prompt-driven analytical chatbot using an LLM tool to support data analysis and audit decision-making.

SAP ABAP Intern | Ford Motor Company
June 2024 – August 2024
- Supported large-scale SAP ERP data migration using ABAP OOP, BDC, LSMW, LTMC, and BAPI tools.
- Optimized ABAP programs and RICEF developments, improving migration efficiency by 20%.
- Ensured high data accuracy and consistency across migrated datasets.

EDUCATION

Bachelor of Engineering (B.E.) – Computer Science and Engineering
Rajiv Gandhi College of Engineering
CGPA: 8.4 | Graduation Year: 2025