

# ASHOK HELAN BRIJESH

## Portfolio

AI / Machine Learning Engineer

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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 across end-to-end ML pipelines and REST API deployment.

## WORK EXPERIENCE

### Audit Automation & Analyst | 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.

## INTERNSHIPS

### AI Intern | IPCS Global Solutions Pvt. Ltd.

November 2025 – Present

- Complete hands-on, industry-aligned training in Data Science, Machine Learning, and Deep Learning using real-world datasets.
- Implemented ML and DL models including Regression, Random Forest, SVM, CNN, RNN, and LSTM using TensorFlow/Keras.
- Performing 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 optimized CNN models achieving 87% accuracy, enabling near real-time multi-person recognition.
- Automated attendance workflows, reducing manual effort by 60% and improving system reliability.

### 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.

## 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 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.
- Developed and deployed the chatbot using a Flask API backend and React frontend.

### Emotion Detection System | CNN, RNN, TensorFlow, Docker, Kubernetes

- Built CNN and RNN models for multi-class emotion detection with **91% accuracy** via optimized architectures and training.
- 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.

## 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, Seaborn
- MySQL, MongoDB
- Git, GitHub, Jupyter Lab

### Additional Experience:

- KNIME (Level 3 Certified)
- SAP ABAP (Internship Exposure)

## CERTIFICATIONS

- [Deep Learning using TensorFlow IBM](#)
- [Accelerated Deep Learning with GPU IBM](#)

## EDUCATION

### Bachelor of Engineering (B.E.) – Computer Science and Engineering

Rajiv Gandhi College of Engineering

CGPA: 8.4 | Graduation Year: 2025