# ASHOK HELAN BRIJESH

Portfolio
**ML Engineer / AI Developer**
**Kanyakumari, Tamil Nadu, India, 629151**
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ML Engineer with hands-on experience building, deploying, and evaluating NLP and retrieval-based systems using Python and TensorFlow. Strong focus on data pipelines, model evaluation, and API-based deployment.

## INTERNSHIPS

### AI Intern | IPCS Global Solutions Pvt. Ltd.
**November 2025 – Present**

- Developed and optimized ML/DL models on real-world data using preprocessing, feature engineering, and tuning.
- 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.

### 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.

### 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 RAG system using FAISS and LangChain that improved audit query accuracy and reduced manual document search effort.
- 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 supportive, non-clinical dialogue generation.
- Implemented NLP preprocessing and stateless chatbot inference in a local execution environment.
- Deployed the system using a Flask REST API and React frontend, without persistent conversation storage.

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

- Built CNN- and RNN-based models for multi-class emotion classification on labelled text/image data.
- Performed data preprocessing, model training, and comparative analysis of model performance and inference behaviour.
- Exposed the trained model through a Flask-based REST API for inference testing and integration.

## SKILLS

**Strong**

- Python, TensorFlow, Keras, Scikit-learn
- Natural Language Processing, Model Training & Evaluation
- NumPy, Pandas
- MySQL
- Flask, REST APIs

**Working Knowledge**

- CNN, RNN, LSTM, Transformers
- Data Preprocessing, Feature Engineering
- Docker
- Git, GitHub

**Exposure**

- Computer Vision
- LangChain, Ollama, FAISS
- Kubernetes
- KNIME
- SAP ABAP

## 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