ASHOK HELAN BRIJESH

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

AI/ML fresher with hands-on exposure to building and deploying deep learning models for computer vision and NLP projects. Familiar with Python, TensorFlow, Scikit-learn, and KNIME (Level 3 Certified), with academic and internship-based experience covering data preprocessing, model training, evaluation, and basic REST API deployment. Worked on real-world projects and internships focused on automation, analytics, and improving model performance.

SKILLS

- **Programming Languages:** Python, Java, C
- **Machine Learning:** Supervised Learning, Unsupervised Learning, Feature Engineering, Model Training, Model Evaluation
- **Deep Learning:** CNN, RNN, LSTM, Seq2Seq, Transformers (DialoGPT)
- **Frameworks & Libraries:** TensorFlow, Keras, Scikit-learn, NumPy, Pandas
- **Computer Vision:** Image Classification, Face Recognition, CNN Architectures
- **Natural Language Processing:** Text Preprocessing, Tokenization, Language Models, Conversational AI
- **Deployment & MLOps:** Flask, REST APIs, Docker, Kubernetes, Git, GitHub
- **Databases:** MySQL, MongoDB
- **Tools & Platforms:** Google Colab, Hugging Face, Postman, VS Code
- **Visualization:** Matplotlib, Seaborn, KNIME
- **Automation & Enterprise Tools:** KNIME (Level 3), SAP ABAP (ABAP OOP, BDC, LSMW, LTMC, BAPI, RICEF)

PROJECTS

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

- Built and trained deep learning models (CNN, RNN) for multi-class emotion detection on a custom dataset.
- Achieved 91% classification accuracy through model tuning and evaluation.
- Performed comparative analysis of CNN and RNN architectures to assess performance and inference efficiency.
- Deployed the model using Docker and Kubernetes, and exposed predictions via Flask-based REST APIs with health monitoring.

Face Recognition Attendance System | CNN, Flask, MySQL

- Developed an AI-powered attendance system using CNN-based face recognition.
- Implemented image preprocessing, face detection, and classification pipelines.
- Integrated the ML model with a Flask backend and MySQL database for persistent attendance storage.
- Automated attendance tracking, reducing manual effort by ~60%, with near real-time multi-user recognition.

Suicide Prevention Chatbot | LSTM, DialoGPT, Flask, React

- Fine-tuned a **transformer-based language model (DialoGPT)** for empathetic conversational responses.
- Implemented NLP preprocessing, sequence modelling, and response generation.
- Built a full-stack chatbot with a **Flask API backend** and **React frontend**.
- Integrated text-to-speech (Eleven Labs) and lip-sync animation (Rhubarb) for interactive user experience.
- Designed the system as a non-diagnostic, supportive conversational AI application.

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 – November 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 reusable data validation components to improve data quality and audit 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.

EDUCATION

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