

ASHOK HELAN BRIJESH

Portfolio

AI / Machine Learning Engineer (Fresher)

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AI/ML fresher with hands-on experience building and deploying deep learning models for computer vision and NLP applications. Proficient in Python, TensorFlow, and Scikit-learn, with end-to-end project experience from data preprocessing to REST API deployment. Delivered measurable results through real-world projects and internships focused on automation and 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 and 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 trained model using Docker containers and Kubernetes for scalable inference.
- Developed Flask-based REST APIs for model prediction and 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 **approximately 60%**.
- Enabled near real-time recognition of multiple registered users.

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 | AICTE Innovative Intern

August 2024 – November 2024

- Engineered an end-to-end face recognition attendance system using **TensorFlow, Keras, and Flask**, translating ML models into a usable application.
- Trained and evaluated CNN models to achieve **87% classification accuracy**, improving reliability of automated attendance.
- Automated attendance workflows, reducing manual effort by **approximately 60%** and minimizing human error.
- Optimized inference pipelines to enable near real-time recognition of multiple individuals.
- Collaborated in a team setting, applying version control and structured development practices.

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, consistency, and audit reliability.
- Translated business audit requirements into scalable, workflow-driven analytical solutions.

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 data migration efficiency by **approximately 20%**.
- Ensured high data accuracy and consistency across migrated datasets in enterprise systems.
- Worked closely with cross-functional teams, gaining exposure to enterprise software development and data governance.

EDUCATION

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

Rajiv Gandhi College of Engineering

CGPA: 8.4 | Graduation Year: 2025