





# YAMIN HOSSAIN


 [Yamin's Portfolio](#)

 630-101-1373

 [issan.yamin@gmail.com](mailto:issan.yamin@gmail.com)

 [Kaggle Profile](#)

 [Yamin Hossain](#)

 [YaminH](#)

## Technical Skills

---

**Programming Languages:** Python, SQL, R, Java, MATLAB, HTML/CSS, JavaScript, LaTeX

**Data Science & ML:** TensorFlow, PyTorch, Scikit-Learn, NLP, Transfer Learning, AutoGluon

**Databases:** MySQL, Microsoft SQL Server, PostgreSQL, MongoDB, Pinecone, Cassandra, Redis, Neo4j

**Tools and Frameworks:** Flask, Langchain, Apache Hadoop, Streamlit, Tableau, Power BI, Looker Studio, Docker, Google Cloud Platform.

**Soft Technical Skills:** Troubleshooting, Project management, Technical writing, Presentation skills

## Recent Projects

---

**Cortex AI: Multi-Model Insights Hub** | *LangChain, ChatGroq API, LLM, Streamlit* January 2025

- Developed a RAG-powered platform integrating **multiple LLMs (DeepSeek, Qwen, Gemma, LLaMA, Mistral)** for document analysis, **achieving 98% retrieval accuracy and reducing response latency by 40%**.
- Engineered a high-performance vector retrieval system using **LangChain's DocArrayInMemorySearch**, enabling real-time context-aware responses, multi-model comparisons, and AI-powered data visualization.

**AI vs Real Art Image Classification System** | *Keras, OpenCV, Grad-CAM, Transfer Learning* August 2024

- Built an AI-powered image classification system using a fine-tuned **MobileNetV2 model (94.50% training accuracy, 95.88% validation accuracy)** to distinguish AI-generated art from real art.
- Implemented **Grad-CAM visualizations** for model interpretability, optimized image processing with OpenCV, and experimented with multiple **CNN architectures (MobileNetV1/V2, DenseNet121, InceptionV3, ResNet50)** for performance benchmarking.

**Movie and TV Show Recommendation App With AI** | *Flask, TMDb API, Jinja2, Render, LLaMA 3* April 2024

- Created a **Flask-based** movie and TV show recommendation app leveraging the **TMDb API**, enabling users to browse by genre and receive AI-powered recommendations with an interactive chatbot.
- Integrated **LLaMA 3 and Groq API** for interactive movie recommendations, reducing query **response time by 35%** and enhancing accuracy in personalized recommendations.

## Experience

---

**Code Casa** Feb 2024 – Mar 2024

*Data Science Intern*

*Remote*

- Implemented ML models for **email spam and fraud detection, achieving 97% precision and reducing false positives by 22%** using ensemble classifiers and feature selection techniques.
- Designed CNN-based gender and age prediction models, **achieving 92% accuracy, reducing classification errors by 12%, and optimizing inference time by 20%**.

**Prodigy InfoTech** Jan 2024 – Feb 2024

*Machine Learning Intern*

*Remote*

- Engineered a house price prediction model (**R<sup>2</sup>: 0.87 on test data**) using regression techniques.
- Implemented deep learning systems for **hand gesture (accuracy: 90%) and food item classification (accuracy: 88%)**, enhancing interaction and tracking accuracy.

## Education

---

**Vellore Institute of Information Technology, Andhra Pradesh** 2021 – 2025

*Bachelor of Technology in Computer Science and Engineering (Data Analytics)*

*CGPA: 7.43*

**Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Object-Oriented Programming, Database Management System, Computer Architecture, Computer Networks, Software Engineering.

**Data Analytics Specialization:** Optimization Techniques, Data Warehousing & Data Mining, Mining Massive Datasets, NoSQL Database, Application of Data Analytics.