HIMANSHU DUTTA

AI ENGINEER [NLP+GEN AI] |PRODUCT &BUSINESS-ORIENTED

OBJECTIVE

Aspiring AI/ML Engineer with hands-on experience in machine learning, deep learning, NLP, and LLM-based systems, including retrieval-augmented generation and intelligent document processing. Seeking to build scalable, end-to-end AI solutions that align technical innovation with business needs, enabling data-driven decision-making and real-world impact through deployable intelligent applications.

PROJECTS

DocuMind.ai – Domain-Specific AI Assistant Suite

- Built a multi-domain AI assistant (healthcare, legal, finance, business) leveraging LLMs and retrieval-augmented generation for intelligent document understanding.
- Implemented semantic search and agentic workflows with sentence embeddings, vector databases, and modular AI pipelines.
  Tech: Python, LLMs, Retrieval-Augmented Generation (RAG), Lang Chain, Chroma DB, Sentence Transformers, Streamlit

News Guard-AI-Powered News Intelligence Platform

- Developed a real-time NLP pipeline to scrape, analyze, and summarize news articles with sentiment and bias detection.
- Applied topic modeling and extractive summarization to generate structured insights and trend analysis.
- Built an interactive via Streamlit dashboard with timelines, filters, and visualizations for improved news exploration.
  Tech: Python, NLP, Web Scraping, Topic Modeling (NMF/LDA), Text Summarization (TextRank), Streamlit, Plotly

Tune DNA-Deep Learning-Based Music Genre Classification

- Designed a deep learning system to classify music genres by transforming audio signals into Mel Spectrogram representations.
- Trained and optimized convolutional neural networks for accurate genre prediction across multiple audio classes.
- Deployed a Streamlit-based interface enabling real-time audio upload and genre inference.
  Tech: Python, Deep Learning, CNNs, Audio Signal Processing, Mel Spectrograms, TensorFlow, Librosa, Streamlit

CERTIFICATION

IBM Data Science Specialization – Coursera [Credential Link]

CONTACT

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Linkdin
Portfolio

ABOUT ME

AI/ML developer experienced in modular ML pipelines, deep learning models, NLP workflows, and RAG-based LLM systems, deployed via Streamlit.

EDUCATION

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY KOTTAYAM

B.Tech Electronics and Communication Engineering

TECHNICAL SKILLS

LLMs & RAG, NLP, Machine & Deep Learning, Semantic Search & Vector Databases, Streamlit

ACHIEVEMENTS

Smart India Hackathon (SIH) 2025-Finalist

LANGUAGES

English(Professional) | Hindi(Native)