Anwesa Mondal

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Education

Indira Gandhi Delhi Technological University for Women *Aug 2024- Present*
B.Tech in Computer Science Engineering with specialization in Artificial Intelligence (8.9 CGPA)

- **Computer Science:** IT Workshop(Using R), Programming With Python, Introduction to Data Science, Data Structures
- **Mathematics:** Probability and Statistics, Linear Algebra, Vector Calculus, Advanced Calculus

Projects

SafeDrive – AI-powered road safety and insurance system *SafeDrive*

- Engineered GenAI-driven analytics using the Gemini API to evaluate driving patterns, jerk , speed, etc, and optimize claim adjudication.
- Contributed to intelligent alert mechanisms including drowsiness detection and driver wellness checks with Twilio integration for real-time emergency escalation
- Integrated chatbot for live claim support and GPS-based hazard zone navigation integrated a conversational AI chatbot for smart claim assistance and dynamic risk analysis using GPS and accident-prone zone data
- **Technologies:** Gemini API, Twilio, FastAPI, RESTful API, Python, OpenCV (support integration) ,MediaPipe

Movie recommender system - *Practice project* *github*

- Built a hybrid movie recommender using content-based (TF-IDF, embeddings) and collaborative filtering (SVD, ALS)
- Optimized data pipelines with Pandas and NumPy for efficient preprocessing and feature extraction
- Deployed ML models with TensorFlow and integrated a real-time recommendation interface
- **Technologies:** Pandas, NumPy, TensorFlow, TF-IDF, Embeddings, SVD, ALS

Enhanced Plagiarism Detection Using Large Language Models and Contextual Similarity Analysis (Nov 2024 - Present) - *Research project* *Letter of approval*
- Nandini Sethi, Department of Artificial intelligence, IGDTUW

- Developed an LLM-based plagiarism detection system using Hugging Face Transformers, sentence-transformers, and web scraping tools
- Built a two-stage pipeline with cosine similarity and deeper semantic analysis for enhanced accuracy
- Generated similarity reports with matched web links and paraphrasing detection
- **Technologies:** Python, Hugging Face Transformers, sentence-transformers, Google Search API, cosine similarity, LLM embeddings

Interstellar Civilization Classifier - *Practice project* *github*

- Developed an AI-driven system that pulls real-time exoplanetary and stellar data from NASA's Exoplanet Archive and MAST APIs to enable large-scale cosmic analysis.
- Designed anomaly detection and civilization modeling pipelines leveraging machine learning algorithms, data science techniques, and theoretical astrophysics to identify technosignatures and simulate civilization evolution.
- Implemented Kardashev Scale classification and built dynamic visualizations with Matplotlib, Seaborn, Plotly, and OpenCV, presenting speculative alien ecosystems based on real astronomical data.
- **Technologies**: Python, Pandas, NumPy, NASA APIs, Data Science, Machine Learning, Matplotlib, Seaborn, Plotly

Practice Project : Whatsapp Chat Analyzer, Healthcare Webapp, Moon Crater Detection,Virtual Paint ,etc.

Achievements

- Among 11 freshers selected for AWS Cloud Club IGDTUW '24 cohort , co-led AI sign language interpreter project.
- 2× Hackathon Finalist – Finalist at CTRL+ALT+HACK (SpaceCon NSUT) among 16 teams selected from 1200+ teams, and Top 16 out of 2000+ teams at Vihaan 8.0 (IEEE DTU)
- Selected as a **SheFi Web3 Scholar**, gaining hands-on experience in in DeFi, blockchain, and Web3 through mentorship.

Technologies

Programming Languages: C++, Python, R.
Skills: Data Structures & Algorithms, Problem-Solving, Machine Learning, Deep Learning, Data Analytics, RAG Systems, Generative AI, LLMs, Workflow Automation
Tools & Platforms: n8n, ElevenLabs, Gradio, Streamlit, Google AI Studio, FastAPI