Aditya Vankani

GitHub | LinkedIn | adivankani@gmail.com | Codeforces | LeetCode | +919313412617

Education

2022 - present	B.Tech in Computer Science(Major) at **Nirma University** Minor in Adaptive AI	(CGPA: 8.84/10.0)[Till 5th sem]
2022	Class 12th from Modi Schools, GSEB.	(90%)
2020	Class 10th, Modi Schools, GSEB	(93%)

Skills

Languages: C/C++, Java, Python, SQL
Frameworks: HTML, CSS, JavaScript, React.js, Node.js, Flask, MongoDB, Tailwind CSS, Bootstrap
Tools: Git, GitHub, Streamlit, Tableau, Kaggle, Logisim, Cisco Packet Tracer,Supabase
Course Work: Natural Language Processing, Computer Vision and Deep Learning, Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Database Management Systems, ML, Data Analysis and Visualization,RL,Soft Computing

Projects

TradeZone: Virtual Stock Market Platform (View Project)
Tech Stack: React (TypeScript), Flask, Supabase, Material-UI, JWT

- Developed a virtual stock market platform with real-time trading, role-based authentication, and market control functionalities, designed for university clubs and events with 100+ participants in stock market competitions.Implemented portfolio management, a market news system, and a leaderboard to track top 10 traders, ensuring an interactive, data-driven trading experience with admin-controlled market dynamics updating every 30 seconds.

DeToxify (View Project)
Tech Stack: Python, NLP (Natural Language Processing), GCP, Docker, Vertex AI, Gemini API, Kaggle, BERT, BART-base

- Developed an NLP-based system to detect toxic comments using the BERT tokenizer for preprocessing and a BART-base model for classification. The model was trained on a large-scale dataset sourced from Kaggle, achieving high accuracy in identifying toxicity with 0.98 AUC score.
- Designed an end-to-end GCP pipeline with Vertex AI for automated model training, evaluation, and deployment. Ensured portability and scalability by packaging the entire solution into a Docker image (Python 3.9) for seamless integration across platforms.
- Integrated the Gemini API to rewrite and stabilize toxic comments into neutral, non-offensive language, providing a practical tool for managing online toxicity in real-time applications.

Product Recommendation System (Prod_recommand - CVDL) (View Project)
Tech Stack: Python, ResNet50, Streamlit, PyTorch, Scikit-learn

- Utilized ResNet-50 pre-trained on ImageNet for feature extraction from product images, generating embeddings stored in a .pkl file for efficient similarity searches.
- Implemented cosine similarity matching with a 0.75 threshold using Scikit-learn, identifying the top 5 visually similar products for accurate recommendations. Developed an intuitive Streamlit-based interface for real-time image uploads and personalized product recommendations, optimized with PyTorch for scalability and responsiveness.

Experience

Intern, Prodigyinfotech June-July 2024

- Designed and deployed web projects, including a Tic-Tac-Toe game with AI, a live weather app, and a digital clock with stopwatch functionality.
- Utilized React.js and Tailwind CSS to create responsive and interactive UIs, boosting user engagement by 30%.

Work Activity

Executive Member, Computer Society of India (CSI) Nirma University, Ahmedabad — Nov 2022 - Present

- Organized events like hackNUthon (150+ participants) and Cubix, promoted innovation, and conducted graphic design workshops for 50+ members.

Executive Member, Association of Computer Engineering Students (ACES) Nirma University — Jan 2024 - Present

- Executing campus events with 100+ participants, blending software development insights to boost collaboration and student engagement.

Intern, Community Service Hiramani Old Age Home, Ahmedabad — July 2023 (10 days)

- Assisted with daily operations, including serving meals, cleaning, and providing empathetic care to enhance residents' quality of life.

Coding Profile

- **Codeforces:** Solved 250+ questions, Username: adi_vankani (Max Rating: 1258 (pupil))
- **LeetCode:** Solved 350+ questions, Username: adi_v_ (Max Rating: 1840)
- **Kaggle:** Implemented ML-based projects and participated in competitions.

Other Activity

Amazon ML Challenge: Find Parameters from Image (View Project)
Tech Stack: BART-base, BERT Tokenizer, Python, Scikit-learn, PaddleOCR

- Fine-tune a BART-base model with BERT tokenizer on parameter extraction from images, using PaddleOCR for text recognition and Scikit-learn for model evaluation.
- Achieved 64.78% Exact Match Accuracy, successfully extracting required parameters from the image dataset.

Face Mask Detection System (YOLOv8)

- Train model for a real-time detection system using YOLOv8, achieving accuracy in proper, improper, and absent mask usage with evaluation metrics including precision (77.36%), recall (61.29%), mAP@50 (65.72%), and mAP@50-95 (40.18%), yielding an overall fitness score of 42.74
- Preprocessed datasets with augmentation techniques to enhance robustness and optimized the model for fast inference on both CPU and GPU, ensuring practical deployment in public spaces to enforce compliance effectively.

Netflix Dataset Dashboard (Tableau) (View Project)

- Created a KPI dashboard analyzing content type, genres, release trends, and regional distribution in a Netflix dataset using Tableau.
- Conducted in-depth analysis using correlation and Chi-Square tests to uncover hidden insights.