Jinay Vora

Bachelor of Technology in Information and Communication Technology

Dhirubhai Ambani University Technology
Formerly DA-IICT

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Education

Dhirubhai Ambani University	October 2022 – Present
Bachelor of Technology in Information and Communication Technology ∣ *CPI: 6.16*	*Gandhinagar, Gujarat, India*
MK Higher Secondary School (GHSEB)	2020 – 2022
Class XII ∣ *72.31%*	*Ahmedabad, Gujarat, India*
GLS Secondary School (GSEB)	2019 – 2020
Class X ∣ *78.83%*	*Ahmedabad, Gujarat, India*

Experience

Dhirubhai Ambani University — May 2025 – July 2025
Summer Research Intern — *Gandhinagar, Gujarat*

- Conducted research under Professor Rachit Chhaya to enhance robustness, fairness, and interpretability in AI models using bias-mitigation and interpretability frameworks.
- Implemented an XGBoost pipeline on a tabular drugs dataset with IBM AI Fairness 360 to benchmark fairness-unaware vs. fairness-aware models and quantify accuracy–bias trade-offs.
- Developed CNN experiments on the FairFace image dataset to evaluate demographic fairness and model robustness.
- Constructed LSTM classifiers for textual data, integrated LIME for local explanations, and assessed procedure-oriented fairness via Ratio-REF and Value-VEF metrics.
- Applied the CERTIFAI framework and the Comprehensive Fairness Algorithm from "Fairness and Explainability: Bridging the Gap" to audit counterfactual explanations, transparency, and fairness across tabular, image, and text modalities.

Caypro — May 2024 – June 2024
Python Intern — *Ahmedabad, Gujarat*

- Engineered an end-to-end LLM-driven quiz-generator prototype with n8n: orchestrated chat-trigger nodes, integrated the Groq API's llama-4-scout-17b model via LangChain nodes, implemented an AI agent for multi-step quiz logic, and used MongoDB for extended context storage.
- Applied Chain-of-Thought reasoning and few-shot prompting to design exemplar QnA prompts and refine system templates for consistent, accurate quiz generation.
- Refactored Python projects by constructing Pandas and NumPy data pipelines, integrating scikit-learn and TensorFlow modules, and standardizing code structure for reproducibility.
- Developed predictive analytics workflows using XGBoost and LSTM/CNN architectures, performing hyperparameter tuning, cross-validation, and RMSE/AUC–based performance evaluation.

Projects

Drilling Equipment Recommendation System ∣ *Python, Pandas, NumPy, scikit-learn, XGBoost*   ⚙
- Created a modular data-generation and preprocessing pipeline in Python (Pandas and NumPy) to synthesize realistic user–equipment interaction logs.
- Trained and tuned an XGBoost classifier to predict equipment success or failure under varied physical and environmental conditions.
- Implemented a cosine-similarity content-based recommender to suggest optimal equipment configurations, streamlining decision support.

Exploratory Data Analysis Project ∣ *Python, Pandas, NumPy, Matplotlib, Seaborn, scikit-learn*   ⚙
- Preprocessed the Variety commodity dataset by handling missing values, normalizing key features, and engineering time-series attributes.
- Conducted in-depth exploratory analysis with line plots, box plots, and correlation heatmaps to reveal seasonal patterns and inform feature selection.

- Built and compared regression models (Linear Regression, Random Forest, XGBoost) with hyperparameter tuning via cross-validation; top model achieved $R^2 > 0.80$.

Wanderways Website Chatbot | *Python, HuggingFace Transformers, BERT*

- Developed a context-aware chatbot using HuggingFace's `pipeline` with `bert-large-uncased-whole-word-masking-finetuned-squad` for question answering over site content.
- Engineered a two-stage retrieval flow: a keyword router (custom `query_keywords`) to select the relevant page section, followed by an LLM-driven QA pass over predefined `website_content`.
- Authored Python modules (`preprocess_query`, `keyword_search`, `get_relevant_link_llm`) to coordinate preprocessing, confidence thresholding, and graceful fallback logic.

Hospital Management Database | *PostgreSQL, ERD, DDL and DML Scripting*

- Designed and normalized a third-normal-form schema covering patients, doctors, appointments, treatments, and billing; produced ER diagrams and DDL scripts for 10+ tables with keys, constraints, and indexes.
- Authored DML scripts to ingest and validate 1,000+ sample records, and implemented complex SQL queries for appointment schedules, patient histories, billing summaries, and inventory audits.
- Optimized query performance through targeted indexing and JOIN refactoring, reducing report-generation time by 30%.
- Documented database design, scripts, and query patterns to streamline future maintenance and onboarding.

Technical Skills

Languages:	C++, Python, SQL
Developer Tools:	n8n, Git, GitHub, VS Code, Linux Shell, Jupyter Notebook, Kaggle, PGAdmin
Frameworks:	Pandas, NumPy, PyTorch, scikit-learn, Matplotlib, Seaborn, Transformers, AI Fairness 360
Cloud & Databases:	PostgreSQL, MongoDB
Soft Skills:	Communication, Networking, Teamwork and Collaboration, Leadership, Time Management, Event Management
Coursework:	Deep Learning, Reinforcement Learning, Machine Learning, Exploratory Data Analysis, DSA, DBMS, Computer Networks, Verilog, MATLAB, AutoCAD
Areas of Interest:	AI/ML, Deep Learning, Natural Language Processing, Computer Vision, Competitive Programming

Positions of Responsibility

Quiz Club, DAU   July 2024 – March 2025
Core Member   *Gandhinagar, Gujarat*

- Organized campus Quiz Nights, the i.Fest Quiz and the Synapse Quiz; served as Quizmaster for multiple competitions.

IEEE Student Branch, DAU   Jan 2023 – Jan 2024
Core Member   *Gandhinagar, Gujarat*

- Co-organized the Annual Tech-Fest (i.Fest '23), the Robotics Event and the Technical Workshop alongside the IEEE student team.

Achievements

- Earned the **Machine Learning with Python – Level 1** certificate from IBM CognitiveClass (View credential).

- Earned the **Data Science Foundations – Level 2** certificate (View credential).

- Earned the **Applied Data Science with Python – Level 2** certificate (View credential).

- Completed the **Prompt Engineering** course (View credential).

- Won the bronze medal at the National Shito-Ryu Karate Championship.

- Won gold medals at State and District Shito-Ryu Karate competitions.