Vedant Nipane

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Education

International Institute of Information Technology

2021-2025

B. Tech. (Honours) in ECE

Experience

Head Digital Works Associate Data Scientist

June 2025 - September 2025

• Delivered comprehensive product analytics on gaming platform's redemption workflows using SQL and Python, analyzing 5.6+ lakh game instances and 23+ crore wagered amounts to identify user behavior patterns and optimize withdrawal/redeem processes

- Architected and A/B tested 'Discounted Game Join' feature using cohort analysis on 96K+ players, projecting 38K net profit through optimized user segmentation and GST strategies
- Built automated fraud detection reporting system for Leave Table Alerts using Python, SQL, and MicroStrategy, streamlining anti-fraud operations and reducing manual monitoring overhead for compliance team

Remote Labs, SPCRC, IIIT Hyderabad

May 2023 - May 2025

IoT Researcher

Huderabad

- Led development of "Remote Titration" project for remote access and control through a web dashboard using Raspberry Pi, Python, and Blynk.
- Secured 1st place at Hyderabad 5G-6G Hackathon and 3rd place nationally at India Mobile Congress 2024.

Projects

TextFlow MLOps Pipeline \bigcirc | Python, DVC, MLFlow, Docker

August 2025

- Developed an end-to-end MLOps pipeline for text classification with automated data ingestion, preprocessing, feature engineering, model training, evaluation, and deployment using CI/CD integration
- Deployed Flask-based REST API for real-time predictions with MLflow experiment tracking and DVC model versioning

Stance Detection in Social Media: A Comprehensive Analysis $\mathbf{Q} \mid Python, BERT, RoBERTa, LLaMA, SVM$

- Implemented and evaluated 15+ models ranging from traditional ML (SVM, Naive Bayes) to state-of-the-art LLMs (LLaMA 3.1/3.2) on SemEval-2016 dataset, achieving F1 scores up to 0.80 on target-specific stance detection with extensive cross-target generalization analysis
- Conducted extensive ablation studies on fine-tuning strategies and contrastive learning approaches, demonstrating that full-parameter fine-tuning outperforms classification-head tuning while JointCL achieves superior zero-shot generalization to unseen targets

Speech Emotion Recognition with Multi-Feature Ensemble Learning \bigcap | Python, SVM, NN

April 2025

- Developed emotion recognition system extracting MFCC and prosodic features at word, syllable, and utterance levels, implementing ensemble methods combining SVM, MLP, XGBoost, and LightGBM models with statistical validation
- Built multi-branch neural networks and conducted comprehensive spectrogram analysis using Praat software, demonstrating that feature granularity significantly impacts model performance across demographics

Time Series Forecasting and Anomaly Detection \mathbf{Q} | Python, SARIMA, LSTM

May 2024

- Built a time series forecasting system using SARIMA and LSTM to predict future trends and analyze temporal data
- Developed an anomaly detection framework by analyzing forecast errors using rolling statistics and classifying anomalies with 1.5, 1.75, and 2 standard deviation thresholds

Tour and Travel Management 🗘 | Python, SQL

• Created a tour and travel agency management database using SQL and Python, implementing over 15 queries for comprehensive trip package management

Technical Skills

Programming: Python, SQL,C, C++, MATLAB

ML/AI: TensorFlow, PyTorch, Scikit-learn, Transformers, Hugging Face, Keras

Tools & Cloud: MLflow, DVC, Docker, Git, AWS (SageMaker, EC2)

Data & Visualization: Pandas, NumPy, Matplotlib, Seaborn, PowerBI, Tableau

Leadership & Achievements

- · Led corporate sponsorship as Corporate Team Head at E-Cell and Corporate Relations Executive for Felicity
- 1st place at Hyderabad 5G-6G Hackathon, 3rd place nationally at India Mobile Congress 2024
- Recipient of Research Award 2024 at IIIT Hyderabad