Dhyan Patel

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EDUCATION

Stevens Institute of Technology

Master of Science in Computer Science - Current GPA: 4.00/4.00

Nirma University

Bachelor of Technology in Computer Science and Engineering

Hoboken, New Jersey, USA

Expected May 2026

Ahmedabad, Gujarat, India

May 2024

EXPERIENCE

Axisray Pvt. Ltd., Ahmedabad, Gujarat, India | Data Science Intern

January 2024 - May 2024

- Extracted features from unstructured data sources, generating visual representations of data analysis findings through charts and graphs, leading to improved data interpretability by 30%.
- Built interactive and responsive visualizations utilizing Python's Plotly library and Flask.

Nirma University, Ahmedabad, Gujarat, India | Summer Research Intern

June 2023 - August 2023

- Designed a wireless IoT sensor network for data collection across multiple sensors, supporting research experiments.
- Implemented fault detection in Wireless Sensor Networks (WSN) using deep learning and machine learning classification models.

Pioneer Systems, Ahmedabad, Gujarat, India | Software Testing Intern

June 2022 - July 2022

- Created comprehensive test-product documentation and participated in testing walkthroughs, reducing error rates in product specifications.
- Collaborated with clients to understand product requirements and inform senior team of design modifications.
- Planned and executed testing scenarios, analyzed results, and communicated findings to the development team, enhancing testing process efficiency.

PROJECTS AND RESEARCH

Visual Question Generation for Chess Game State Identification | NLP, CNN | Paper Link May - Dec 2023

- Developed a framework for chess, integrating computer vision and deep learning to identify board states and generate contextually relevant questions using a template-based approach.
- Enhanced chess education and analysis by creating a system that processes game images into structured formats and formulates logical questions to assess comprehension and reasoning.

BookNest: An Ensemble-Based Book Recommendation System | NLP, ML | Paper Link May - Dec 2023

• Engineered ensemble-based book recommendation system by integrating multiple approaches to analyze similarities between user reviews and book descriptions. Attained superior predictive accuracy with RMSE of 1.273%.

Speech Emotion Detection | Python, Deep Learning, ViT, CNN, LSTM, TensorFlow, Keras

April - May 2023

- Employed a CNN model to analyze emotional cues in voice data, reducing response time by 20%.
- Leveraged CNNs for spatial feature extraction, LSTMs for temporal pattern recognition, and vision transformers for sequence handling.

Smart Waste Management System | Data Mining, Scikit, TensorFlow, YOLO, Matphotlib, Python | April - May 2023

- Assessed high-definition WaRP-D dataset, containing over 2,974 images from an industrial waste sorting plant.
- Identified garbage and its types harnessing the YOLO v8n model.
- Created a transactional dataset with area-related information to optimize waste management operations.

Humor Detection | Pandas, Scikit, TensorFlow, Keras, Matplotlib, HTML/CSS, NLP | GitHub

Nov - Dec 2022

- Modeled a humor detection system applying machine learning and NLP techniques, achieving 88.29% accuracy with the Bag of Words model and 76.25% with Word2Vec.
- Designed an interactive user dashboard with HTML, CSS, and JavaScript, integrated with a Django-based backend for real-time input classification.

KEY ACHIEVEMENTS & CERTIFICATIONS

Tata Group - Data Visualisation: Empowering Business with Effective Insights | Forage

March 2025

SQL Practice: Basic Queries | LinkedIn

Dec 2024

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, C, SQL, Unix Scripting, HTML, CSS, Javascript, Solidity, LaTeX Tools and Libraries: NumPy, Pandas Scikit-Learn, Keras, Flask, Django, Tensorflow, LangChain, Matplotlib, NLTK, Seaborn, MongoDB, Github, Excel, Word, MS Powerpoint, Postman, Matlab, OpenCV, Hadoop, Tableau.