Dhairya Kalathia

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EXPERIENCE

[redacted]

AI/ML Project Internship | Feb 2025 – May 2025

- **AI-Driven Predictive Maintenance** – Developed machine learning models (RNN-LSTM, ANN, RandomForestClassifier) to predict failures and detect anomalies in defense systems using IoT sensor data.
- **Real-Time Data Processing** – Designed frameworks for analyzing high-frequency IoT sensor streams, enabling mission-critical diagnostics and system optimization.
- **Secure AI Solutions in Defense** – Gained hands-on experience in AI-driven defense applications, ensuring secure, resilient, and data-driven decision-making at [redacted].

[redacted]YE TECHNOLOGIES PVT. LTD.

ML Internship | Dec 2024 – Feb 2025

- **AI-Powered Virtual Try-On System** – Developed a real-time garment fitting solution using machine learning models like DensePose, [redacted]Pose, and SCHP for accurate human segmentation and clothing overlays.
- **Optimized Backend for E-Commerce** – Engineered a [redacted]API-based backend to enhance API performance and ensure [redacted]mless integration with online shopping platforms.
- **Enhanced Visual Realism with AI** – Leveraged Stable Diffusion Inpainting and pre-trained AI models to refine garment placement, improve visual realism, and optimize performance on high-performance GPUs.

PROJECTS

STOCK PRICE PREDICTION USING LSTM NEURAL NETWORKS

Self-Learning Project | Sept 2024 – Nov 2024

- **Stock Price Prediction with LSTM** – Developed an LSTM neural network for accurate stock market forecasting, improving decision-making for investors.
- **Data Optimization & Visualization** – Enhanced model performance through data preprocessing and created 3D visualizations for better trend analysis and financial insights.

AI BASED NUMBER PLATE DETECTION

Self-Learning Project | Nov 2023 – Dec 2023

- **AI-Powered Vehicle Detection & Recognition** – Developed a high-accuracy traffic monitoring system using Python, [redacted]CV, and YOLOv7 for real-time vehicle detection and number plate recognition.
- **Scalable & Efficient Deep Learning Models** – Implemented advanced computer vision techniques to ensure reliable, real-time processing and improve accuracy in traffic monitoring.

EDUCATION

SAFFRON[redacted](GTU)

Computer Engineering, CGPA: 8.41 / 10.0

Mehsana, [redacted], 2021- 2025

[redacted](HSC)

PCM Science, Result: 86.17 %

[redacted], [redacted], 2019-2021

SKILLS

- **PROGRAMMING LANGUAGE** - Python
- **TOOLS & PLATFORMS** - GitHub, [redacted], [redacted]
- **DEEP LEARNING** - Nueral Networks, Object Detection, Transfer Learning, Transformer, YOLO
- **MACHINE LEARNING** - k-means Clustering, KNN, SVM, Regression, Boosting, Decision Trees, RandomForestClassifier
- **LIBRARIES** - Numpy, Pandas , Scikit-learn, Tensorflow, Keras, PyTorch, [redacted]CV, [redacted]Pipe, [redacted]plotlib, [redacted]born, [redacted]API, Gradio