# Dhwani Vyas

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## EDUCATION

**Pandit Deendayal Energy University** | *Gandhinagar, Gujarat*     **July 2023 – Present**
*B.Tech in Computer Science Engineering -* **CGPA: 9.63**

## EXPERIENCE

**BakeOTopia** | *Freelance Full-Stack Developer*     **Oct 2025 – Dec 2025**

- Built a **full-stack bakery web application** handling **100+ product records** with a structured frontend–backend architecture
- Designed and implemented **Supabase-backed data models and APIs** to manage product data, categories, and dynamic content
- Implemented **CRUD operations** for product listings, enabling efficient data updates without frontend redeployment
- Optimized layouts and state handling for desktop and mobile responsiveness across **multiple screen sizes**
- Deployed the application on Vercel, achieving **sub-2 second page load times** and reliable production builds
- Structured the codebase to support **future extensions** such as authentication, order flow, and admin dashboards
- **Tech Stack:** React, TypeScript, Vite, Tailwind CSS, shadcn-ui, Supabase, Vercel
- **Links:** Visit Site ↗ Source Code ↗

## PROJECTS

**PlantSense AI** | *PyTorch, EfficientNet-B0, FastAPI, React, Render, Vercel*     *Jan 2026*

- Designed and developed an **end-to-end AI-powered plant identification system** using **PyTorch and EfficientNet-B0** to classify plant species from user-uploaded images
- Trained and fine-tuned a deep learning model on a curated dataset of **2,400+ real-world plant images across 13 species**, leveraging **transfer learning** and data augmentation techniques
- Built a **FastAPI-based inference service** to serve the trained model and deliver **real-time predictions (<1s inference time after cold start)** with confidence scores
- Implemented **confidence-based prediction filtering** to reject low-confidence outputs, improving reliability and reducing incorrect classifications on ambiguous inputs
- Developed a responsive **React frontend** enabling image upload, API integration, and structured visualization of plant identification results and care recommendations
- Deployed a **decoupled frontend–backend architecture** using **Render (backend)** and **Vercel (frontend)**, addressing CORS configuration, environment-based API routing, and ML model cold-start latency
- **Links:** Live Demo ↗ Backend Code ↗ Frontend Code ↗

**StockPred** | *FastAPI, XGBoost, PostgreSQL, SQLAlchemy, Next.js, Yahoo Finance API*     *Jan 2026*

- Developed an end-to-end **ML-powered stock prediction platform** that generates directional trading signals using historical and live market data.
- Trained an **XGBoost-based classification model** on multi-asset equity data (100+ stocks, 2018–present) to predict **5-day price direction.**
- Performed extensive **feature engineering** including momentum returns, moving averages, volatility metrics, and lag features
- Implemented **risk-aware backtesting** with confidence filtering and volatility-adjusted position sizing, achieving **33%+ cumulative returns** with controlled drawdowns.
- Built a scalable **FastAPI backend** supporting real-time single-stock and batch predictions using live Yahoo Finance data ingestion.
- Integrated **PostgreSQL database** for user management, watchlists, and prediction logs with secure authentication.
- **Links:** Live Demo ↗ Source Code ↗

**ProTract** |*Next.js, Web3.js, Python, Scikit-learn (SVM)* *March 2025*

- Developed AI-Powered Fraud Prevention System, a **FinTech prototype** to analyze and classify **Ethereum transactions** using machine learning
- Processed a dataset of **500+ public on-chain transactions** collected via Web3.js
- Engineered a **Support Vector Machine (SVM)** model to distinguish suspicious and non-suspicious transactions
- Performed **feature engineering** on key attributes such as transaction value, gas usage, and transaction frequency
- Integrated ML outputs into a Next.js frontend to display transaction details and classification results
- Created at Breach'25, Gujarat's Biggest Fintech Hackathon
- **Links:** Live Demo ↗ Source Code ↗

## SKILLS

**Programming Languages:** Java, Python, C++, SQL, HTML, CSS, JavaScript, Typescript
**Computer Science:** Data Structures, Analysis and Design of Algorithms, Object Oriented Programming, Operating Systems, Computer Networking, Database Management Systems.
**Web Technologies:** React.js, Next.js, Flask, Node.js, Express.js, TailwindCSS, Shadcn UI, RESTful APIs, SQL, MongoDB.
**AI/ML tools:** Tensorflow, PyTorch, Sk-learn, Pandas, Numpy, Prompt Engineering, LLM/LMM fine tuning.
**Networking:** TCP/UDP Sockets, Congestion Control, Secure Data Transfer.
**Tools:** Git & GitHub, Docker, Firebase, Supabase, Postman, Vercel, Resend, VScode, Cursor, PostgreSQL, Prisma

## CERTIFICATIONS

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| **IBM 4-weeks Internship** | *Aug 2025* |
| *AI & Cloud \|Edunet Foundation* | Credentials ↗ |
| **Google Data Analytics** | *July 2024* |
| *Coursera* | Credentials ↗ |
| **Artificial Intelligence Fundamentals** | *June 2024* |
| *IBM SkillsBuild* | Credentials ↗ |
| **Google AI Essentials** | *July 2024* |
| *Coursera* | Credentials ↗ |
| **Cisco Networking Basics** | *Aug 2025* |
| *Cisco Networking Academy* | Credentials ↗ |
| **Understanding Incubation and Entrepreneurship** | *Oct 2025* |
| *NPTEL* | Credentials ↗ |

## ACHIEVEMENTS

- **1st Runner-up – Breach'25 Hackathon**, a 48 hour hackathon at PDEU, Gandhinagar.
- Conducted a **1.5 hours workshop on Python Libraries**, organized by GeeksForGeeks at **PDEU, Gandhinagar**.
- Qualified in **Top 50** teams of **Level Supermind Hackathon'25** at **Lower Parel, Mumbai**.
- **LeetCode:** 300+ problems solved across arrays, trees, graphs, and DP.