

# Vaidik Shah

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## Technical Skills

**Languages:** Python, JavaScript (ES6+), TypeScript, Java, C/C++, SQL, NoSQL, Python API Backend, HTML, CSS, Software Development

**Frameworks & Libraries:** Django, Flask, NodeJS, NestJS, ReactJS, OpenAI API, Groq, LLaMA, Robotics Platforms

**AI/ML Tools:** LangChain, RAG, TensorFlow, PyTorch, LLM integration, Machine Learning, Statistical Learning, Deep Learning

**Developer Tools & Platforms:** Git, VSCode, Docker, Kubernetes, AWS, CI/CD, Agile, Linux

**Analytics & Data Tools:** Data Visualization, Power BI, Statistics, Analytical Skills, Project Coordination, Concurrency, Data Analysis

**Core Competencies:** Computer Science Fundamentals, Modern Programming Languages, Enthusiasm for Learning

## Experience

### Technolee

July 2024 – July 2025

ML Engineer

Ahmedabad, Gujarat

- Designed and deployed a **backend REST API** to serve **machine learning predictions** with **sub-200ms response latency**, enabling **real-time sales trend analysis** and **automated reporting** for an apparel company's **20+ product lines**, which **improved demand forecasting** and **reduced manual reporting time by 10+ hours per week**.
- Built and fine-tuned a **logistic regression model** on historical apparel sales data across **20+ product categories**, achieving **~80% prediction accuracy (F1 score: 0.78)** and **reducing forecasting errors by 25%** compared to baseline.
- Automated an **ETL pipeline** for continuous **data ingestion and preprocessing**, improving data refresh frequency from weekly to daily and ensuring the model trained on the latest apparel sales activity.
- Python, FastAPI, scikit-learn, PostgreSQL, AWS (EC2, S3)

### Indian Space Research Organization (ISRO)

January 2024 – July 2024

AI/ML Engineer intern

Ahmedabad, Gujarat

- Engineered a **backend preprocessing pipeline** for **large-scale satellite datasets**, reinforcing **data governance** and ensuring **data integrity** for production model inference.
- Built scalable ML models with Python, scikit-learn, and XGBoost, maintaining **high data quality** and achieving **>92%** real-world prediction accuracy.
- Applied **feature engineering** and **hyperparameter tuning** (cross-validation, early stopping), **reducing forecasting errors by 25%** and **improving computational efficiency by 20%**.
- Designed **clear, interactive visualizations** with **Matplotlib** and **Seaborn** to communicate **forecasting trends** and **model insights** to **scientific stakeholders**, enabling **data-driven decision-making** and **scientific reporting**.
- Python, xarray, scikit-learn, XGBoost, Pandas, NumPy, Docker

### Cre-Art Solutions

June 2023 – August 2023

Software Engineer Intern

Ahmedabad, Gujarat

- Developed and optimized **RESTful APIs** with **Django**, streamlining **financial data processing**, improving system **efficiency by 20%**.
- Implemented **data validation and optimizations**, reducing **accounting entry errors by 18%** and compliance with reporting norms.
- Built interactive **Power BI dashboards** connected to **SQL databases**, gives insights into revenue, expenses, and key financial metrics.

## Personal Projects

**Academic Video Summarizer** | Python, FastAPI, LangChain, OpenAI (LLM + embeddings)

February 2025

- Built an **RAG pipeline** to generate context-rich summaries of academic videos by integrating external reading materials, **cutting hallucinations by ~32%**.
- Enhanced **LLM performance** through **few-shot learning** and **prompt engineering**, **improving summary by ~14%**.

**Auto Review & Image Scraper** | Python, Selenium, BeautifulSoup, Scikit-learn, Statsmodels

August 2024

- Built a full-stack data scraping pipeline** to collect **1,000+ real customer reviews**, **100+ product images**, and **500+ product links** from H&M's e-commerce site, creating a structured dataset for downstream ML/NLP tasks.
- Automated synthetic review generation** producing **1,200+ labelled reviews per run** with controlled sentiment distribution (75% positive, 15% negative, 10% neutral), enhancing dataset diversity and improving training data quality.

## Education

California State University, Long Beach

Aug 2025 – Present

Master of Science in Computer Science

Long Beach, CA, USA

Gujarat technological university

Sep 2020 – Jun 2024

Bachelor of Science in Computer Science

Ahmedabad, Gujarat