OM M. PATEL

Toronto, Ontario | +1 437-212-3702
iampatelom@gmail.com | Github | LinkedIn | Kaggle

Vector AI Scholarship recipient with one plus year of experience in developing advanced AI, ML and NLP solutions. Skilled in Python, deep learning frameworks, and data engineering with real-world data. Eager to contribute to AI projects by, applying technical expertise to solve business challenges.

SKILLS

Languages	Python, Javascript, HTML+CSS, SQL
ML/DL Libraries	Pytorch, Scikit-learn, TensorFlow, NumPy, Geo/Pandas, Langchain, Flask
Tools	Docker, AWS EC2, Render, MongoDB, Firebase, Github, Jira, PostMan
Areas of Interest	AI Democratization, NLP, LLMs, Deep Generative Models, Prompt engineering

TECHNICAL EXPERIENCE

Backend & Data Engineer Intern   Dec 2024 — Aug 2025
Sharperly, Nigeria(Remote)
- Designed Airflow-powered **ETL pipelines** for geospatial datasets (Geopandas, Python), increasing throughput around **25%**.
- Containerized services on **AWS** and **Render** via **CI/CD pipelines** and **GitHub Actions**, ensuring scalability and consistent performance.
- Optimized **MongoDB** schemas and indexing for real-time lookups used by downstream ML components; collaborated across engineering and product teams.

Data Science Intern   Mar — July 2024
Sharperly, Nigeria(Remote)
- Developed geocoding APIs with **Python** (**Flask**, **Geopandas**) to reduce dependency on GMaps API and cutting costs upto **45%** (approx 350 USD) monthly.
- Scraped and pre-processed **20k+** addresses to create robust training datasets, producing versioned datasets for ML training.
- Trained and evaluated models (RNNs, K-Means, GNNs, Autoencoders) to predict user behaviour, optimize routes and detect anomalies.

PROJECT

Legal Clarity : *Simplifying Legal Documents*   Aug 2024 - Nov 2024
- Built **NLP based Flask application** for legal document processing.
- Applied advanced transformer models (**Pegasus**, **T5**, **IndicBARTSS**) using **PyTorch** for translation and summarization of complex multilingual legal texts.

Driver Pay Forecasting : *Uber NYC Driver Pay Prediction*   Feb - May 2024
- Compared **ML-DL** models (ANN, RF, BiLSTM, LSTM+GRU) ran architecture and hyperparameter searches achieving almost **12%** lower RMSE vs. baseline.
- Visualized features affecting driver pay using **Tableau**.

ChatPdf AI : *Chat with Your PDF*   Dec 2023 - Feb 2024
- Built a Proof Of Concept for Conversational AI using RAG architecture with **80%** accuracy using **Sentence Transformers**, **LangChain**, **PyPDF2** and **FAISS** by optimizing search and analysis.

Autograder : *Precision in Every Grade*   Sept - Nov 2023
- **Led a six-member team** to develop an automated grading system, using React for the front-end, **Python** with **Flask** for model integration, backend logic, and **MongoDB** for data storage.
- Achieved over **63%** grading accuracy by developing a custom pipeline combining **BERT-Uncased** with **NLP**; leveraged **SpaCy** and **PyTesseract** for image-based answer sheet processing.

EDUCATION

Master of Science in Computer Science, with AI Specialization
York University, Ontario, Canada   **Sept 2025**

Bachelor of Technology in Computer Engineering (GPA: 3.47/4)
Pandit Deendayal Energy University, Gandhinagar, India   **Nov 2021 - May 2025**

EXTRACURRICULARS

- **Vector AI Scholarship Recipient**, York University — May 2025
- Published Research Paper: *"Automated Sleep Stage Classification using Machine Intelligence Techniques"* at ADCIS 2024, BITS Pilani. — Sept 2024
- **Kaggle ML Olympiad Top-10 Rank** Indian weather prediction — April - May 2024
- **AI/ML Mentor**: Guided 10+ students on projects including Autograder and Legal Clarity
- **President**, Tattvam - The Sanskrit Club of PDEU — June 2023 - May 2024
- Volunteered at Vardaan Foundation: Taught essential digital literacy to empowering underprivileged students — June - Jul 2022

CERTIFICATIONS

- **Generative AI with LLMs** — Coursera. view
- **LangChain: Chat with your Data** — Coursera Project. view
- **LLMs: RAG with LlamaIndex & Azure OpenAI** — CredsVerse. view
- **Generative AI Project** — iNeuron. view
- **Applications of AI/ML in Biomedical Signal Processing & CV** — (PDEU). view
- **Understanding Incubation & Entrepreneurship** — NPTEL. view
- **C Programming** — Great Learning. view
- **Excel for Beginners** — Great Learning. view