# VIMARSH DWIVEDI

???**Q** VIT, Bhopal, India · **\**+91-7887266088

Machine Learning Engineer and Full Stack Developer with expertise in AI systems and web applications. Implemented deep learning solutions achieving 40% performance gains and built RAG systems for document search. Expert in Python, TensorFlow, and React with proven success developing scalable applications and optimizing data pipelines across cloud platforms.

#### **EDUCATION**

# Bachelor of Technology in Computer Science Engineering

Expected May 2026

Vellore Institute of Technology, Bhopal, India

**CGPA:** 8.16/10.0

Class XII, Science Stream

June 2021

Kendriya Vidyalaya, Aliganj, Lucknow, India

Percentage: 85.6%

Class X

June 2019

Kendriya Vidyalaya, Aliganj, Lucknow, India

Percentage: 88.2%

#### TECHNICAL SKILLS

Programming Languages: Python, JavaScript, SQL, C++, Java, HTML5, CSS3

Machine Learning & AI: TensorFlow, PyTorch, Scikit-learn, Deep Learning, NLP, LangChain, Vector Search, Transformers

Development: Docker, AWS, RESTful API, Flask, FastAPI, React, Node.js, Express

Databases: MongoDB, MySQL, PostgreSQL, Pinecone, Firebase

Relevant Coursework: Data Structures & Algorithms, Machine Learning, Database Management Systems, Artificial Intelligence,

Computer Vision, Big Data Analytics, Object-Oriented Programming

#### PROFESSIONAL EXPERIENCE

### Data Science Intern

April 2025 - Present

Nexuom, Remote

- Engineered comprehensive PDF editor with features for rotation, watermarking, and security controls (locking/unlocking), increasing client document handling efficiency by 55%
- $\bullet$  Architected RAG-based document pipelines using LangChain and vector databases that improved information extraction accuracy by 40%
- Developed benchmarking system to evaluate performance of various LLMs for document Q&A, identifying optimal models that reduced operational costs by 32%
- $\bullet$  Implemented serverless document processing infrastructure with Python and Hugging Face, enabling real-time document analysis with 35% faster response times

# TECHNICAL PROJECTS

### PDF Q&A System

https://github.com/VimarshDwivedi/PDF-Q-A-USING-LLM

Python, LangChain, Hugging Face, Streamlit, FAISS

- Developed a Retrieval-Augmented Generation (RAG) system for querying PDF documents, achieving 90% accuracy in natural language responses
- Implemented vector-based document search using Hugging Face embeddings and FAISS, reducing query response time by 45%
- Designed an interactive Streamlit interface, improving user engagement by 60%

### Multi-Modal Real Estate Price Prediction

 ${\tt https://github.com/VimarshDwivedi/House}_price_prediction$ 

Python, TensorFlow, Scikit-learn, CNN, LSTM, Flask

- Engineered hybrid CNN+LSTM neural network processing multimodal data with 92% property valuation accuracy
- Implemented feature engineering pipeline with dimensionality reduction, increasing model generalization by 18%
- Constructed containerized Flask API supporting concurrent property valuation requests with horizontal scaling

### Medical GenAI Assistant

 ${\rm https://github.com/VimarshDwivedi/medicalbot}_{g} enai-main$ 

Python, LangChain, Hugging Face, FAISS,

Stream lit

- Built a medical chatbot using RAG and LLMs, achieving 93% accuracy in answering medical queries
- Integrated vector database with Hugging Face embeddings, improving knowledge retrieval efficiency by 50%
- Developed a Streamlit-based UI for symptom-based queries, enhancing user accessibility by 65%

### CERTIFICATIONS

Full Stack Web Development, Coursera (2023) AWS Cloud Architect Associate, AWS (2025)