Vishal Patel

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Data Scientist with 3 years of experience in scalable ML models, cloud deployments, and automation. Skilled in Python, Kubernetes, and AWS, with a dedication to transforming data into impactful insights. Eager to drive data-driven solutions in a dynamic, growth-focused environment.

Skills

- Python, R, C++
- EDA, DataWrangling,
- Feature Engineering
- Matplotlib, Seaborn
- Excel, Tableau
- Linux (Ubuntu)

- Machine learning, NLP, AI
- scikit-learn, TensorFlow,
- MLflow, Transformers
- LLMs-fine_tunning, CNN.
- SQL,MongoDB,VectorDBs
- Jira, Trello,

- AWS, GCP, Heroku
- Docker, Kubernetes, CI/CD
- FastAPI, Flask, Streamlit
- Practical Teaching.
- Effective communication
- Team Collaboration

Work Experience

Machine Learning Engineer, Cherukuru Technologies & Consulting Limited, Toronto, ON

Immigration RAG-Based AI Chatbot **(09/2023–09/2024)**

- Developed a high-performance RAG-based chatbot using Llama2 7B, LangChain, and Pinecone DB for NLP tasks, integrating complex text processing with regex.
- Optimization: Achieved a 22% increase in processing speed and an 18% capacity boost using MLflow and AWS SageMaker for automated scaling.
- Impact: Reduced operational costs by 15% and improved client satisfaction by 20%

Machine Learning Engineer, Maxgen Technologies Pvt. Ltd., India **(10/2019- 04/2022)**

Crop Health Monitoring System

- A key contributor to a large-scale agricultural project, implementing CNN models (VGG16, ResNet) on **Kubernetes** for enhanced scalability and model orchestration.
- **Deployment:** Built end-to-end **CI/CD pipelines** on **AWS** with **MLflow** and **Docker**, improving prediction accuracy by 25% and crop yield accuracy by 30%.
- Cross-functional Collaboration: Collaborated with data engineering teams using **Hadoop** and **Spark** to manage and scale big data workflows.

Freelance Data Analyst | Retail Sales Performance Dashboard **(Since 2020)**

- Analyzed retail data for various clients, utilizing SQL, Python, and Tableau to drive insights into sales growth, inventory turnover, and profit margins.
- Created interactive dashboards, identifying a 22% regional sales increase and a 20% reduction in stockouts, enhancing strategic planning.

Key Projects (GitHub)

E-Commerce Product Recommendation System

- Developed a hybrid recommender system combining content-based and collaborative filtering models, achieving 88% precision and deploying with **FastAPI** and **Docker on GCP Kubernetes**.

Customer Churn Analysis and Prediction

- Achieved a 93% F1 score on XGBClassifier and ANN models, deploying an API with **Flask** and **Docker** on Heroku, using **Apache Spark** for large-scale data handling.

Sentiment Analysis on Amazon Food Reviews

- Implemented sentiment analysis using **RoBERTa** and **VADER** models, achieving high accuracy through robust NLP preprocessing with **NLTK**.

Education

Post Graduation in Artificial Intelligence and Machine Learning. **(05/2022–12/2023)**
Lambton College, Toronto, ON (GPA: 3.6/4)

Bachelor of Engineering in Computer Science. **(09/2015–08/2019)**
Gujarat Technological University, Gujarat, India (GPA: 3.8/4)

Certification & Award

- Google Data Analytics Certification
- Python for Data Science by IBM
- Advanced SQL from Simplilearn
- Microsoft PowerBI by Simplilearn
- Generative AI from iNeuron.AI

- Machine learning from IBM
- NLP and DeepLearning,DeepLearning.AI
- Award for Innovation in Data Imputation,
- Innovate India Coding Hackathon 2018
- Employee of the Year: MaxGen Technology