Ayushi Patel

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Summary

Applied AI/ML Engineer with 2 years of experience translating complex data into tangible, high-performing models. Specialized in Predictive Analytics and Model Deployment (MLOps), with a strong command of Python, TensorFlow, and cloud platforms. Passionate about building intelligent systems that learn and adapt.

Technical Skills

Programming: Python, Java, SQL
Frameworks & Libraries: PyTorch, TensorFlow, Scikit-learn, Keras, Pandas, NumPy, Matplotlib, Seaborn, OpenCV, spaCy, Hugging Face Transformers, CNNs, RNNs, Transformers, GANs
MLOps & Tools: Git, GitHub, Docker, AWS (SageMaker, EC2, S3), Flask, PostgreSQL

Work Experience

Samcom Technologies, Ahmedabad, India   **May 2022 - June 2024**
ML Engineer

- Engineered an end-to-end Intelligent Document Processing (IDP) pipeline using Python and OpenCV to automate invoice data extraction, achieving a 30% reduction in data entry errors.
- Trained and fine-tuned Named Entity Recognition (NER) models using spaCy to identify and extract key-value pairs (e.g., invoice number, amount, date) from unstructured text.
- Developed a Scikit-learn classification model to automatically categorize document types and validate extracted fields against historical data queried from PostgreSQL.
- Designed and deployed a Flask REST API to serve the extraction model for seamless integration with the company's ERP system.
- Managed the full model lifecycle using Git/GitHub for version control and collaborated with finance teams to gather requirements, ensuring the ML solution met business needs.

Virtual Bridge Pvt. Ltd., Gandhinagar, India   **Feb 2022 – March 2022**
Software Developer Intern

- Collaborated with the development team to design and implement key modules for client-based web applications using React , improving overall system performance and scalability.
- Contributed to API integration and backend optimization, ensuring smooth data flow between front-end and server-side components.
- Assisted in debugging, testing, and deploying new software features along with reducing production issues.

Projects

Bioacoustics Health Score & Rare Species Detection
Developed an AI-driven system to assess ecosystem health by generating a Biodiversity Health Sco*r*e from acoustic data. Built a DNN for score prediction using acoustic indices (ACI, NDSI) and a CNN for rare species detection. Designed the full data pipeline with Python, Librosa, and deployed via Flask API.

Stock Tracker: Stock Market Analysis Management
Analyzed historical stock data to identify patterns and forecast prices using Pandas and NumPy. Integrated NSE APIs for real-time data and embedded TradingView Widgets for dynamic visualization.

Education

MS Computer Science	Montclair State University Montclair, NJ	**Sept 2024 - May 2026**
BE Computer Engineering	LDRP Institute of Technology and Research, India	**Sept 2020 - May 2024**

Certifications and Achievements

IBM Data Analytics under IBM Skills Build Program, By AICTE (All India Council for Technical Education)
Python for Data Science, By NPTEL (National Programme on Technology Enhanced Learning), IIT Madras
Level 2 MATHEGON, IIT Gandhinagar, India