AMIT SAHU

AI/ML Engineer — Python Developer

Professional Summary

Detail-oriented Machine Learning Engineer with expertise in Python, Scikit-learn, TensorFlow, and PyTorch. Experienced in designing, developing, and deploying AI/ML solutions, APIs, and cloud-based systems. Skilled in data preprocessing, model optimization, MLOps, and backend integration. Passionate about scalable architectures, automation, and delivering measurable business impact.

Technical Skills

Programming Languages: Python, C, SQL

Databases: MySQL, MongoDB

Frameworks/Libraries: Scikit-learn, TensorFlow, PyTorch, OpenCV, Flask, FastAPI, Streamlit, Pandas,

NumPy, Matplotlib, Seaborn

Tools: Git, GitHub, Docker, Jupyter Notebook, Google Colab

Cloud Platforms: AWS, GCP, Azure

Machine Learning: Model Tuning, Cross-validation, Data Cleaning, Classification, Regression, Evaluation

Metrics, NLP, Deep Learning

Deployment: RESTful API Design, Containerization, Backend Integration, Cloud Deployment

Professional Experience

Machine Learning Intern

Apr 2025 - Jul 2025

Tecnovacore Pvt. Ltd. (Remote)

Tech: Python, Scikit-learn, Pandas, FastAPI

- Improved classification model accuracy by 15% using hyperparameter tuning and optimized ML pipelines.
- Developed RESTful APIs for real-time inference, reducing integration time by 40%.
- Streamlined ETL workflows with Pandas and NumPy, improving data processing speed by 25%.
- Benchmarked model performance with cross-validation, confusion matrices, and F1-score analysis.
- Collaborated with backend team to deploy ML services into production using Docker and FastAPI.
- **Proof:** Internship Certificate and Work Samples

Key Projects

CabWise - Multi-Platform Fare Checker | Python, Selenium, JSON

Jan 2025 - Mar 2025

- Automated fare comparison for Rapido, Uber, and Ola, enabling real-time cost tracking.
- Implemented CAPTCHA and popup handling to ensure uninterrupted data extraction.
- Created structured JSON logs for historical fare analytics.

VulneraScan – Full-Stack Vulnerability Detection System | React, FastAPI, ML

Mar 2025 - May 2025

- Developed a vulnerability detection platform using ML to classify risk severity.
- Integrated backend APIs with React frontend, enabling interactive results display.
- Generated PDF reports with detailed scan results for compliance tracking.

Real-Time Person Detection System | Python, OpenCV, Flask, YOLO

Sep 2024 - Nov 2024

- Built a live surveillance tool with YOLO and MobileNet-SSD, achieving 90% detection accuracy.
- Deployed on Flask backend with TensorFlow/PyTorch inference options.
- Optimized detection latency to under 150ms per frame.

Awards and Certifications

- Top 15 Finalist IIC Hackathon, Manipal University Jaipur (2024) Developed predictive satellite data model using geospatial ML.
- AI/ML for Geodata Analysis ISRO IIRS (Aug 2024 Sep 2024).
- Certified ML Intern Tecnovacore Pvt. Ltd. (Apr 2025 Jul 2025).
- Certified ML Trainee ITM University (Jan 2024 Mar 2024).

Education

Bachelor of Technology in Computer Science Engineering

Jul
 2022 - Jun $2026~({\rm Expected})$

ITM University, Gwalior, Madhya Pradesh

CGPA: 7.6/10