

Abhinav R

AI / ML Engineer · Generative AI · Data Science · Full-Stack Development

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SUMMARY

BCA (Artificial Intelligence & Machine Learning) student in the IBM Integrated Program at Lovely Professional University, with an AI Engineering internship at Uplyx Solutions. I build end-to-end ML, computer vision and generative AI applications, from data preparation and evaluation to FastAPI services and React interfaces. Seeking AI/ML, data science and full-stack internships.

EXPERIENCE

AI Engineering Intern — Uplyx Solutions Jan 2026 – Mar 2026 · Remote

- Developed AI and machine learning applications in the AI industrial training program: data preprocessing, model development, evaluation and optimization.
- Built and tested Python-based AI solutions, collaborating with Git and GitHub.

EDUCATION

Bachelor of Computer Applications (BCA) — AI & Machine Learning, IBM Integrated Program 2025 – 2028 (expected)

Lovely Professional University, Punjab, India

SELECTED PROJECTS

Customer Churn Intelligence — ML Prediction & Retention Analytics Python · scikit-learn · SHAP · Streamlit

- Leakage-safe pipeline on the IBM Telco dataset (7,043 customers); 5-fold CV benchmark and GridSearchCV tuning (Random Forest ROC-AUC 0.847, churn recall 0.79), TreeSHAP explanations and a multi-page Streamlit dashboard with 22 passing tests.

Breast Cancer Classification — Wisconsin Diagnostic ML Pipeline scikit-learn · Streamlit · pytest

- Recall-first classification pipeline: 98.25% accuracy, ROC-AUC 0.9954 and 97.62% malignant recall on 114 held-out samples; interactive Streamlit app and 11 tests.

CybeWatch AI — Cybersecurity Threat Detection Platform XGBoost · FastAPI · React 19 · PostgreSQL

- Multi-class network-threat classifier (DoS, PortScan, BruteForce, Botnet, Exploits) with explainable predictions, an AI incident investigator mapped to MITRE ATT&CK and a SOC dashboard; live demo on GitHub Pages.

PlantNexus AI — Plant Disease Detection, Comparative Deep Learning PyTorch · CUDA · ViT · FastAPI

- Benchmarked 7 architectures (ResNet-50, ViT-B/16, EfficientNet-B0, DenseNet-121, VGG-16, AlexNet, LeNet-5) on 54,299 leaf images across 38 classes; fine-tuned ResNet-50 reached 99.41% test accuracy.

AgentOS AI & DevMind AI — Generative AI Applications FastAPI · React · TypeScript · LLMs

- AgentOS: human-approved research automation that turns a natural-language request into a bounded, verifiable workflow (plan → evidence → CSV → email draft).
- DevMind: codebase intelligence platform with Tree-sitter parsing, dependency graphs, change-impact analysis and an evidence-grounded AI assistant.

GlanhzeeTrade.ai & StockVision — Financial ML Python · Flask · LSTM · yfinance · Gemini

- Stock-direction prediction combining news sentiment with technical indicators (RSI, MACD, Bollinger Bands), comparing Logistic Regression, Random Forest and LSTM; finance dashboard with ML price prediction.

Real-Time Object Detection & Tracking · ForgeFlow YOLO11 · ByteTrack · OpenCV · React · FastAPI

- YOLO + ByteTrack detection and tracking dashboard for images, video and webcam; ForgeFlow, an AI-assisted project management app with Kanban, multi-tenant isolation and Docker setup.

TECHNICAL SKILLS

Languages	Python, SQL, Java, C, C++, JavaScript, TypeScript, HTML, CSS
AI / ML	scikit-learn, PyTorch, TensorFlow/Keras, XGBoost, OpenCV, CNNs, Vision Transformers, ANN/LSTM, NLP, SHAP
Generative AI	Gemini, OpenAI & Claude APIs, RAG, FAISS, LangChain, AI agents, prompt engineering
Data Science	Pandas, NumPy, Matplotlib, Seaborn, Plotly, Jupyter, EDA, feature engineering, model evaluation
Web & Backend	React, FastAPI, Flask, Node.js, Express, Streamlit, REST APIs, PostgreSQL, SQLite, Supabase, Firebase
Tools	Git, GitHub, Docker, VS Code, Postman, Claude Code, GitHub Copilot

CERTIFICATIONS, TRAINING & ACTIVITIES

- Cisco Python Essentials 1 (Sep 2025) & 2 (May 2026) — Credly: [PE1](#) · [PE2](#)
- AI Industrial Program Training — Uplyx Solutions (Jan – Mar 2026)
- IBM: Introduction to Artificial Intelligence and Machine Learning
- Community volunteering — Snehakoodu Abhayamandiram Old Age Home, Kottayam