Aditya Shukla

+91 83180 58543 | adityashukla1346@gmail.com | LinkedIn | GitHub | LeetCode

PROFESSIONAL SUMMARY

B.Tech student in Computer Science (AI & ML) at VIT-AP University (CGPA: 8.97/10) seeking Software Engineering and Machine Learning internships. Experienced in computer vision, time-series forecasting, backend development, and full-stack software development using FastAPI, XGBoost, Next.js, and LLM APIs. Interested in building scalable software and machine learning systems from data pipelines to deployment.

EDUCATION

Vellore Institute of Technology, Amaravathi (AP) 2024 – 2028
B.Tech in Computer Science (AI & ML) CGPA: 8.97/10

Delhi Public School, Lucknow (UP) 2008 – 2024
Class X: 97% | Class XII: 85.4%

PROJECTS

Ternary QAT YOLOv26s for Edge Detection Sep 2025 – Present
Python, YOLOv8–v26, Computer Vision, QAT, Git

- Developed a YOLOv26s drill rig detector using **15,311 labeled images**, achieving **99.50% mAP@0.5** and **94.85% mAP@0.5:0.95** after quantization-aware training.
- Implemented progressive W1.58A16 ternary quantization-aware training for selected backbone and neck convolutions using layer sensitivity profiling to preserve detection accuracy.
- Developed ternary weight packing and export tooling, achieving **10x model compression** with only a **0.36 point** reduction in mAP@0.5:0.95 compared with the FP32 baseline.

Vidyut AI Live | GitHub Mar 2026
Python, XGBoost, Scikit-learn, FastAPI, Next.js, Tailwind CSS

- Designed and deployed a real-time electricity demand forecasting platform for 30 Indian smart cities using an XGBoost and Linear Regression hybrid model, achieving **9.12% MAPE** on unseen test data.
- Engineered a lag-free feature pipeline using weather and calendar features, enabling real-time inference without historical demand inputs.
- Deployed a FastAPI backend with a Next.js dashboard, reducing end-to-end prediction latency to under 300 ms.

PatchNote Live | GitHub May 2026
Next.js, Clerk, Supabase, Gemini API, Tailwind CSS

- Built a full-stack platform that generates release notes by integrating GitHub and Linear through OAuth 2.0.
- Used the Gemini API to convert pull requests and issue data into structured release notes for technical, executive, and customer audiences, reducing manual effort from about 40 minutes to under 5 minutes.
- Implemented Clerk authentication, Supabase PostgreSQL storage, and shareable public release pages for production deployment.

TECHNICAL SKILLS

Languages	Python, Java, JavaScript, SQL
Machine Learning	YOLO, Scikit-learn, XGBoost, Computer Vision, Quantization-Aware Training
Backend & APIs	FastAPI, REST APIs, OAuth 2.0
Databases	Supabase PostgreSQL, ChromaDB
Frontend	Next.js, Tailwind CSS
Developer Tools	Git, Docker, MATLAB, Figma