Anshul Kumar

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Professional Summary

AI & Cybersecurity student with hands-on experience developing ML-driven security systems, language models, and automation pipelines. Proven ability to deliver measurable impact including 60% reduction in penetration testing time and 95% real-time threat detection accuracy. Skilled in Python, TensorFlow, FastAPI, and AI model deployment with a strong foundation in applied machine learning, network security, and data science.

Education

Bachelor of Technology in Artificial Intelligence and Data Science June 2022 – June 2026
Shah and Anchor Kutchhi Engineering College
CGPA: 7.5/10

Professional Experience

AI Cybersecurity Analyst, DeepCytes Cyber Lab Jan 2025 – June 2025

- Built and deployed machine learning models for real-time threat detection with 95% accuracy.
- Developed an automated anomaly detection system using Python and ML algorithms to monitor system processes continuously.
- Integrated feature engineering and data preprocessing pipelines to enhance prediction quality.
- Optimized model inference pipelines, reducing false positives by 30% and improving detection speed.

Red Team Security Analyst, DeepCytes Cyber Lab June 2024 – August 2024

- Automated penetration testing with Python, cutting manual effort by 60
- Increased vulnerability detection accuracy by 25% using dynamic scans.
- Found and mitigated 30+ critical vulnerabilities across enterprise systems.

Generative AI Research Intern, National Stock Exchange of India July 2025 - Sept 2025

- Led development of a multilingual real-time translation system using IndicTrans2
- Achieved 95% BLEU translation accuracy and 60% latency reduction via FastAPI + SQLite caching pipeline
- Deployed scalable Node.js + FastAPI architecture, replacing outsourced translation services and saving 75L annually.Ensured compliance with SEBI and internal data security regulations during deployment.

Technical Projects

Neural Style Transfer using CycleGAN Architecture | *Team Size: 4* GitHub Repository

- Built and evaluated CycleGAN-based image-to-image translation models for artistic style transfer using TensorFlow/Keras.
- Implemented custom loss functions and OpenCV-based data augmentation to enhance visual fidelity.
- Achieved SSIM of 0.89 and PSNR improvement of 18% vs baseline GAN architectures.

IndicTrans2 Translator for NSE Website | *Real-time Multilingual Translation*
Technologies: Node.js, FastAPI, Python, IndicTrans2, SQLite, Cython, Transformers, Express.js

- Architected an enterprise-grade real-time translation system for the NSE website using IndicTrans2.
- Implemented a streaming proxy with caching, improving throughput by 60% and reducing response
- Integrated model inference with RESTful APIs for seamless scaling and deployment across multi-lingual workloads.

Achievements

- 2× Hackathon Winner (AI/ML) – Outperformed college teams with predictive modeling and GenAI solutions.
- CTF Champion (Forensics) – Led a 5-member team to victory in a cybersecurity challenge.
- Creative Head – Kalavrund Art Club, organized 10+ events fostering collaboration and innovation.

Certifications

- Oracle Cloud Infrastructure 2025 Generative AI Professional (1Z0-1127-25)
- Oracle Cloud Infrastructure 2025 Multicloud Architect Professional (1Z0-1151-25)
- Oracle AI Vector Search Professional (1Z0-184-25))