Aadi Jain

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Education

Vellore Institute of Technology, Bhopal Sept 2022 – Present
B.Tech. in Computer Science Engineering CGPA: 8.75

Technical Skills

Programming Languages: Python, C++, C, Java, SQL, JavaScript, HTML, CSS.

Machine Learning & AI: Transformer Models, NLP, CNNs, Deep Learning, Data Preprocessing.

Software & Tools: MySQL, Linux, AWS, Postman API.

Experience

Software Developer – EncurelT Systems Pvt Ltd Feb 2025 – May 2025

- Modernized anomaly detection using YOLOv12, achieving a measured 45% improvement in precision and improving speed of image-based data inspection tasks, increasing throughput by 200 images per minute.
- Refactored backend architecture with FastAPI, Redis caching, and modular API endpoints, resulting in a 30% reduction in data response latency during high-load operations.
- Implemented automated testing, reducing bug detection time, enhancing software reliability across modules.

Projects

Dementia Prediction Model (Python, PyTorch) GitHub

- Developed a dementia predictive model (Python, Random Forest), achieving 93% accuracy on 373 observations.
- Led coding and machine learning implementation, preprocessing 15+ features and producing 8 visualizations (e.g., scatter, heatmap) to analyze dementia patterns.
- Conducted comparative analysis of ensemble models (XGBoost, Gradient Boosting, AdaBoost), identifying XGBoost as top performer with 96% accuracy, 91.04% F1, and 87.50% recall.

KrishiAI (TensorFlow, IoT, ReactJs) GitHub

- Optimized agricultural decisions by classifying soil health with 95.3% accuracy using advanced predictive modeling.
- Designed and integrated IoT sensor systems using Arduino on Tinkercad to collect real-time agricultural data.
- Engineered KrishiAI's core architecture, developing a robust Flask backend for data processing and API management and an interactive React frontend for intuitive user interaction and data visualization.

FaceRecogPro (OpenCV, Tkinter, Haar Cascade, LBPH) GitHub

- Developed real-time desktop app for student ID, automated attendance, enhancing classroom efficiency.
- Achieved 75–80% facial recognition accuracy with 400 image samples per student, significantly reducing manual errors in attendance tracking.
- Integrated robust data storage and retrieval mechanisms for attendance records, leveraging CSV files for efficient logging and easy access, thereby enabling detailed reporting and analysis to inform administrative decisions.

Achievements

- **IEEE**, 2023: Ranked in the top 500 in MOVE-A-THON, conceptualizing AI solutions for 10 urban traffic scenarios.
- **IGDTUW**, 2023: Collaborated with a team to create Figma-based prototypes for an educational platform improving the learning experience for students.
- **EY Techathon 5.0**, 2024: Designed an innovative AI model for the medical field, tackling critical healthcare challenges with cutting-edge technology.
- **Zelestra X AWS ML Ascend Challenge (2nd Edition)**, 2025: Ranked in top 325 teams with 89.80% accuracy, developing ML models for solar energy forecasting.

Extracurricular

- Supervised NTC Club's environmental event, engaging 200+ students in a themed painting competition.
- Mentored 25+ club members in advanced videography and editing techniques, producing high-impact videos for AdVITya, engaging 2,000+ attendees and enhancing club's production quality.
- Crafted a voice-controlled AI quiz for Google's Actions platform in Jan '20, achieving a 90% user completion rate, uncovering key insights into voice application engagement, and winning goodies for the project.