Aadi Jain

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Education

Vellore Institute of Technology, Bhopal   Sept 2022 – Present
B.Tech. in Computer Science Engineering   CGPA: 8.62

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

KrishiAI (TensorFlow, IoT, ReactJs)   Jun 2024 - May 2025

- 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)   Feb 2024 - May 2024

- 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.

Dementia Prediction Model (Python, PyTorch)   Nov 2023 - Dec 2023

- 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.

Achievements

- **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.
- **EY Techathon 5.0**, 2024: Designed an innovative AI model for the medical field, tackling critical healthcare challenges with cutting-edge technology.
- **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.

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.