JAI DESAI

Linkedin | GitHub | jai.desai.engr@gmail.com| +91 7410716117

SUMMARY

Passionate Engineer with hands-on experience in machine learning, computer vision, and generative AI. Skilled in building and deploying predictive models, deep learning pipelines, and cloud-based APIs. Strong foundation in Python, PyTorch, and TensorFlow, with a proven ability to translate business problems into data-driven solutions.

EXPERIENCE

Freelancer (Part Time):

- Delivered 35+ Python automation and data analytics projects, including dataset preprocessing, visualization, and model training for small-scale clients.

Nodesec Technology – Data Security Engineer (Aug 2024 – April 2025):

- Collaborated with senior engineers to manage and configure GTB (Guard, Track, Block) Data Loss Prevention (DLP) tool for client environments.
- Ensured compliance with data protection regulations including GDPR, HIPAA, and PHI by implementing and monitoring security policies.
- Deployed ML models securely on AWS using IAM roles, EC2, and S3-based data encryption.

I-Help Robotics Private Limited (Remote)- AI Research Intern (May 2025 – Oct 2025):

- Developed and deployed YOLO-based deep learning models for real-time threat detection systems, enhancing automated security monitoring capabilities.
- Optimized computer vision datasets and implemented end-to-end model deployment pipelines to enable efficient threat identification in production environments.
- Built scalable inference pipelines using FastAPI + Docker for low-latency deployment.

EDUCATION

Bachelor of Engineering in Computer Science (2021 - 2024)
Relevant Coursework: Machine Learning, AI, Data Structures, Cloud Computing

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SKILLS

- Programming Languages: Python, SQL, C++, React.js,
- Cloud/DevOps: AWS, Docker, Kubernetes, Linux
- ML/DL Frameworks: TensorFlow, PyTorch, Scikit-Learn, OpenCV, Transformers
- GenAI: LLMs, Prompt Engineering, LangChain, LoRA Fine-tuning
- Core Areas: NLP, Computer Vision, MLOps, Statistics, Data Modeling

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PROJECTS

Health Insurance Payment Predictor: Link

- Developed a machine learning model to predict health insurance costs using patient demographics and medical history, achieving ~92% accuracy with XGBoost.
- Deployed Built an interactive Streamlit web app enabling real-time cost estimation.

Multimodal GenAI Assistant (LangChain + OpenAI API + FastAPI)

- Built a multimodal chatbot integrating text and image understanding for domain-specific use cases.

CERTIFICATIONS

- Supervised Machine Learning: Regression and Classification – DeepLearning.AI
- Advance Learning Algorithms – DeepLearning.AI

PUBLICATIONS

- Face Detection System Using Convolutional Neural Networks