

# ROHAN LOHIYA

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GitHub [github.com/Rohan-Lohiya](https://github.com/Rohan-Lohiya)

📍 Guwahati, Assam

## Education

Indian Institute of Information Technology Guwahati

Bachelor of Technology in Electronics & Communication Engineering

November 2022 – June 2026

## Technical Skills

**Programming Languages:** Python, Java, C, JavaScript

**Web Development:** React.js, Next.js, Node.js, Express.js, MongoDB, Tailwind CSS, Socket.io

**Machine Learning & AI:** PyTorch, Hugging Face Transformers, Donut OCR, Vision Transformers, BART, LangChain

**Data Handling & Visualization:** Pandas, NumPy, Streamlit, OpenCV

**Tools & Platforms:** Git, RESTful APIs, JSON/CSV Processing

## Experience

### Machine Learning Intern

May 2025 – July 2025

Triksha Health Pvt. Ltd.

Remote / Hyderabad, India

- Collected and organized a proprietary dataset of 500 medical report images (CBC, LFT, KFT pathology records).
- Developed a **Streamlit annotation platform** for semi-automated structured data extraction from medical images to CSV format.
- Built a companion tool to convert CSV annotations into **Donut-compatible JSON ground truth** using sequence-style transformation.
- Preprocessed the entire dataset pipeline, enabling end-to-end training on a fine-tuned **Donut OCR model** for structured extraction.
- Evaluated model performance using **BLEU-1/BLEU-4** scores for predicted JSON outputs against ground truth.
- Technologies:** Python, Streamlit, Donut OCR, OpenCV, Pandas, Hugging Face Transformers, PyTorch, NLTK

## Projects

### Biomedical AI Diagnostics

GitHub

- Developed a multimodal vision-language framework for automated chest X-ray interpretation and report generation.
- Integrated **Vision Transformers** with a generative **LLM**, enhanced by multi-view X-ray fusion and domain-specific fine-tuning.
- Implemented attention mechanisms and cross-modal alignment techniques improving diagnostic accuracy and clinical relevance.
- Achieved strong performance: **METEOR: 0.2690, ROUGE-1: 0.3380, ROUGE-L: 0.3565** on benchmark datasets.

### FridayAI - AI SaaS Platform

GitHub | Live Demo

Multi-modal AI application with conversation, code generation, music creation, and image/video generation capabilities

- Architected scalable SaaS application using Next.js 14 (App Router), TypeScript, and Tailwind CSS with modern UI/UX patterns.
- Integrated Google Gemini and Pollinations APIs for AI services, implementing error handling and rate limiting for optimal performance.
- Developed secure authentication system using Clerk.dev with role-based access control and billing-ready user management.
- Designed robust data layer with Prisma ORM and PostgreSQL, implementing efficient database schemas and query optimization.
- Deployed on Vercel with CI/CD pipeline, achieving 99% uptime and handling concurrent user sessions effectively.

## Certifications

Advanced Learning Algorithms, DeepLearning.AI/Stanford University

Supervised Machine Learning: Regression and Classification, DeepLearning.AI/Stanford University