ADITYA RAI

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GitHub: My Github Leetcode: My leetcode

PROFESSIONAL SUMMARY

B.Tech Computer Science&ArtificialIntelligence student specializing in AI-driven problem solving, backend engineering, and automation. Hands-on experience designing and deploying end-to-end systems that combine robust software architecture with modern AI (LLMs, RAG, and deep learning).
Currently focused on building retrieval-augmented generation pipelines, fine-tuning models, and integrating AI into full-stack applications. Motivated to work on high-impact products that apply machine intelligence to finance, healthcare, and developer productivity.

CORE STRENGTHS

AI & ML

LLMs RAG Fine-Tuning TensorFlow Neural Networks Hugging Face FAISS Chroma

BACKEND

Python Node.js Express.js Django REST APIs

FRONTEND

React.js TypeScript UX Design Matplotlib

DATA

MongoDB SQL Supabase ETL

TOOLS

Git GitHub Model Evaluation

LANGUAGES

English (Fluent), Hindi (Native)

EDUCATION

B.Tech–CS&A I
at Guru GobindSinghIndraprastha university
current cgpa: 7.5

Coursework: ML, Deep Learning, DSA, Databases, OS, Statistics.

KEY PROJECTS

AssetWise Analytics **11/2025 – Present**
AI-DrivenPortfolioAnalytics&Optimization Platform
github.com/raixyzaditya/FinanceGPT

- Builtastock portfolio analytics platform enabling users to evaluate risk–return trade-offs and optimize asset allocation.
- Engineered financial computation pipelines for portfolio value, P/L, returns, asset/sector allocation, best/worst performers, volatility, beta, Sharpe ratio (point-in-time and annualized), and rolling volatility.
- Implemented Modern Portfolio Theory (MPT)–based optimization to automatically construct efficient frontier portfolios and generate high-return, balanced, and low-risk allocations.
- Designed visual analytics dashboards with volatility plots, Sharpe ratio curves, and allocation breakdowns to enable intuitive decision-making.
- Extending with scenario and stress testing, real-time portfolio monitoring, and transaction-aware rebalancing powered by Python analytics services.
- **Tech stack:** React.js (frontend), Node.js + Express.js (backend), Python (analytics engine), TypeScript (type safety).

NeuroScan **06/2025 – 07/2025**
DeepLearningforBrainTumorDetection from MRI
github.com/raixyzaditya/NeuroScan

- Developeda CNN-based medical imaging system to detect brain tumors from MRI scans and classify them into Normal, Glioma, Meningioma, and Pituitary categories.

INTERESTS

- AI in Finance
- AI in Healthcare
- Developer Tools
- RAG Systems

Achievements

- Earned HackerRank Python Certificate for demonstrating proficiency in core Python programming concepts.
  My certificate

- Contributed to the development of Meegloo's web platform, building key frontend and backend components that improved user experience and platform performance.
  Meegloo web

- Implemented a TensorFlow model with optimized preprocessing and augmentation for improved generalization and robust predictions.
- Built a web interface for MRI upload, automated scan processing, and instant diagnostic output to simulate clinical workflows.
- Added an AI-powered knowledge module that surfaces symptom summaries and commonly recommended treatment paths per detected class to help users interpret results.
- **Tech stack:** React.js (UI), Node.js + Express.js (backend), Python + TensorFlow (deep learning).

CodeCatalyst **11/2025 – 11/2025**

AI-AssistedCodeOptimization&Language ConversionPlatform
github.com/raixyzaditya/CodeCatalyst

- Built a platform that transforms low-performance Python scripts into highly optimized C++ or Java implementations using AI-assisted refactoring.
- Developed an automated benchmarking engine to compare execution times between original and generated code, enabling real-time performance insights.
- Designed a self-serve web interface for code submission, compilation, and performance evaluation with clear speed-up reports.
- Integrated Anthropic LLM APIs to enhance code generation reliability, preserve semantic correctness, and support multi-language transformations.
- **Tech stack:** React.js, Node.js, Express.js, Python, TypeScript, Anthropic APIs.