

Prathmesh Ojha

B.Tech CSE (Data Science and Artificial Intelligence) — 2027
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Portfolio — Engineering Playbook — Blueprint

Internship

Getting Roots *(Mobile Application Developer)* Jun 2025 - Jul 2025

- Developed a cross-platform Flutter application (iOS, Android) following Clean Architecture principles, implementing modular features with Provider-based state management.
- Integrated REST APIs with remote/local data flows, local caching fallback, dependency injection (GetIt), and structured error handling.

Projects

Angel Five (AI Financial Dashboard) Sep 2025 – Present — Demo
Tech: Next.js, React, TypeScript, Node.js, Express, FastAPI, PostgreSQL, Firebase, Redis, BullMQ

- Built a full-stack financial dashboard using **React/Next.js** and **Node.js/Express**, implementing watchlists, portfolio analytics, authentication, notifications, and market-data workflows.
- Designed and integrated **RESTful APIs** across frontend, backend, and ML services, handling authentication, validation, asynchronous operations, and service communication.
- Implemented **Redis/BullMQ** for asynchronous market-data ingestion, forecasting, analytics, and notification workloads to improve application responsiveness.
- Developed modular backend services with **Express middleware, async/await, error handling**, structured logging, Docker, and Render/Vercel deployment.

Rapid AI Drug Repurposing (Research Project) Feb 2026 – Present
Tech: Python, PyTorch Geometric, PyTorch, PrimeKG, Ollama (LLaMA 3.2), Streamlit

- Built an inductive **GraphSAGE** framework on PrimeKG (10.6K nodes, 161.6K edges) to rank candidates across 2.45M drug–disease pairs.
- Engineered 131D multimodal features from TF-IDF biomedical embeddings and physicochemical molecular descriptors.
- Achieved **92.35% AUC-ROC** and **84.84% F1** ($92.63\% \pm 0.41\%$ 5-seed CV) with strict leakage prevention and GCN/GAT/RGCN benchmarking.
- Deployed a Streamlit Discovery Lab with < 2.5 ms CPU inference and local LLaMA 3.2 mechanistic explanations.

Skills

Programming Languages: Python, JavaScript, TypeScript, C++, Java, SQL, Dart
Web & App Development: React.js, Next.js, Node.js, Express.js, FastAPI, Flask, Flutter, Tailwind CSS
Databases & Tools: MySQL, Firebase, Redis, Docker, Render, Vercel, Git, GitHub, BullMQ
Concepts: REST APIs, API Design, Async/Await, Middleware, Microservices, CI/CD, Data Structures & Algorithms, OOP, Database Design, Authentication, State Management, Debugging, Problem Solving
AI & Machine Learning: PyTorch, Hugging Face, Scikit-Learn, Pandas, NumPy

Education

B.Tech CSE (Data Science and Artificial Intelligence) 2023 – 2027
CGPA: 7.57
Credit-Linked Program in Data Science, Daksh Gurukul, IIT Guwahati 2025 – 2026