

Ritika Jha

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Education

- **B.Tech in Electronics and Communication Engineering** (NSIT) Netaji Subhash Institute of Technology
2021–2025

Experience

Data Engineer Motion Engineers, Gurugram
Jan 2025 – Jun 2025

- Built a generative AI pipeline on 5,000+ ad visuals, improving CTR by **15%**.
- Developed a **PyTorch VAE mockup generator**, cutting design approval time by **40%**.

Data Scientist SwiftStats AI, Remote
Jul 2024 – Sep 2024

- Delivered real-time pricing dashboards that increased profit margins by **5%**.
- Contributed to Docker-based CI/CD workflows ensuring **99.9% uptime**.

Full Stack Intern Ripe and Raw Organics, Remote
Mar 2024 – Jun 2024

- Built a MERN e-commerce platform serving **1,000+ daily transactions**.
- Optimized APIs and queries to achieve sub-**150ms** response times.

Projects

- **Dream Catcher** — AI-powered dream interpretation system using **RAG + GPT-4**, integrating cultural-symbol databases with hybrid retrieval and visualization dashboards; focused on context-aware query handling and quality control.
- **PainPoint-AI** — Full-stack AI business consultant built with PostgreSQL and React, providing real-time dashboards and actionable recommendations. Implemented prompt orchestration pipelines to analyze freelancer pain points and suggest tool adoption strategies.
- **BinaryLab** — Interactive digital logic education platform using **Next.js, TypeScript, and HTML5 Canvas**. Developed a custom circuit simulation engine supporting real-time logic evaluation, drag-and-drop components, and guided exercises. Piloted with students as a teaching aid for digital electronics courses.
- **Token Economics API** — Backend service that optimizes prompts into **token-efficient formats** for LLMs, reducing API usage costs. Designed as a lightweight REST API for easy integration into multiple frontends, with benchmarks showing **20–30% reduction** in token consumption without loss of model output quality.

Technical Skills

- **AI / ML:** Generative AI, RAG, embeddings, PyTorch, LLM integration
- **Languages:** Python, SQL, JavaScript (ES6+), C++
- **Databases:** PostgreSQL, MongoDB
- **Web / Frameworks:** React.js, Next.js, Node.js, Express.js, FastAPI
- **Visualization / BI:** Power BI, Tableau, custom React dashboards
- **DevOps / Tools:** Docker, Git, Vercel, AWS, CI/CD, n8n