

Ritika Jha

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Education

- **B.Tech in Electronics and Communication Engineering** Netaji Subhash University of Technology
2021-2025

Experience

Data Engineer Motion Engineers, Gurugram
Dec 2024 – Present

- Engineered a generative AI pipeline by curating a 5,000-sample dataset of ad visuals, leading to the successful training of a model that **improved ad creative click-through rates by 15%**.
- Developed a PyTorch (VAE)-based mockup generator that streamlined the design process, **reducing design approval time by 40%**.
- Co-developed and deployed the primary company landing page using React.js, contributing to the initial market presence and capturing early user interest.

Data Scientist SwiftStats AI, Remote
Jul 2024 – Sep 2024

- Built and launched a dynamic pricing dashboard using MongoDB and Express.js, which integrated real-time inventory and market trends, enabling the business to **increase profit margins by 5%** on key product lines.
- Engineered web crawlers and APIs for real-time product monitoring and **automated price-matching against 25 key competitors**, saving an estimated **15 hours per week** of manual analysis.
- Contributed to CI/CD pipeline development and deployment using Docker, ensuring **99.9% uptime** during the critical product launch phase.

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

- Developed a full-featured, responsive e-commerce platform using the MERN stack, supporting a catalog of over **500 products** and handling high traffic of up to **1,000 daily transactions**.
- Designed and implemented RESTful APIs and optimized MongoDB queries, achieving an average **API response time of under 150ms** under load.

Projects

- **BinaryLab**
 - Built BinaryLab, an interactive digital logic education platform using Next.js, TypeScript, and HTML5 Canvas, featuring 10 guided projects including ALU design, LFSR implementation, and FSM traffic light controllers to make binary concepts accessible through hands-on learning.
 - Developed comprehensive circuit simulation engine with real-time logic evaluation, drag-and-drop component library (logic gates, multiplexers, displays), and custom canvas-based wiring system, enabling students to build and test digital circuits without hardware constraints
- **PainPoint**
 - Built a full-stack AI business automation consultant that analyzes freelancer pain points and generates actionable solutions with tool recommendations, timelines, and ROI calculations using ChatGPT API integration
 - Developed responsive web and mobile applications using React, Next.js, React Native/Expo, and PostgreSQL to deliver real-time problem analysis with streaming responses and pattern recognition across 12+ business categories
 - Implemented intelligent data analytics system that identifies recurring business problems, tracks automation opportunities, and provides freelancer insights through interactive dashboards and scoring algorithms
- **Instagram Content Automation**
 - Architected and built a zero-touch automation workflow using n8n that auto-generates and publishes Instagram posts.
 - Integrated OpenAI's API for intelligent caption generation and the Meta Graph API for direct publishing, **eliminating over 5 hours of manual content management per week**.

Technical Skills

- **Languages:** JavaScript (ES6+), Python, C++, HTML5/CSS3, SQL
- **Frameworks/Libraries:** React.js, Node.js, Express.js, PyTorch, n8n, AI integration
- **Databases:** MongoDB, PostgreSQL
- **DevOps & Cloud:** Docker, Git, Vercel, CI/CD, AWS
- **Soft Skills:** Public Speaking, Team Collaboration, Agile Methodologies, Problem Solving