Yash Sinha

8800765105 | yashsinha680@gmail.com | Linkedin | Github

Education

Indraprastha Institute of Information Technology Delhi, India
B.Tech in Electronics and VLSI Design Engineering (CGPA: 8.17) *Nov 2022 – May 2026*

Technical Skills

Languages and Frameworks: C, C++, Python, Java, HTML, CSS, JavaScript, SQL, TypeScript, Node.js, React

Expertise: Data Structures and Algorithms, Data Science, Distributed Systems, Machine Learning, Deep Learning, Computer Vision, Microservices, Object-Oriented Design, Operating Systems, Database Management Systems

Tools and Technologies: Git, PyTorch, Scikit-learn, FastAPI, AWS, Kafka, MongoDB, Redis, Docker, Kubernetes

Work Experience

Software Development Engineer July 2026 – Oct 2026
Zupee *Gurugram, India*
Software Development Engineer Intern *Mar 2026 – June 2026*

- Design, develop, and ship full-stack features and HTTP and event-driven APIs (Kafka, SQS, WebSockets) across a TypeScript/Node.js and React microservices architecture backed by MongoDB and Redis and deployed on Kubernetes, and resolve production incidents through root-cause analysis
- Validate features with automated test suites for backend and real-time (WebSocket) flows in staging, then progressively release to production behind A/B tests, user segments, and ZooKeeper-backed feature flags
- Integrate third-party KYC and payment services (payment gateway, UPI AutoPay, Apple in-app subscriptions), securely handling sensitive data, and debug gateway, wallet, and mandate failures

AI Intern May 2025 – Sep 2025
Mstack Chemicals

- Developed and deployed Agentic AI workflows and multilingual LLMs (e.g., for chemical patent parsing) using Streamlit and Docker, enabling extraction of pharmaceutical API insights and improving information retrieval efficiency
- Implemented a Retrieval-Augmented LLM-driven Bayesian Optimization system for chemical reaction optimization, using embeddings from extensive reaction data to construct informed priors, resulting in a 10% yield increase and 20% fewer experimental iterations

Research Experience

Fractional Batch Training for Ultra-High Resolution Images Aug 2024 – Dec 2025
UG Researcher, CAI Lab, IIIT Delhi

- Researched a fractional batch training framework for ultra-high-resolution images, reducing GPU memory usage by 24% while improving training stability
- Achieved accurate object counting in 1200×1200+ pixel images with 1000+ objects per frame, and used an automated annotation refinement pipeline to identify 1,891 unannotated objects across 5,199 FSC-147 images

Projects

TrustSight - AI Fraud Detection System | *Amazon Hackon 2025* Jun 2025

- Built fraud detection system using PyTorch multi-task learning models and graph neural networks to identify counterfeit products and review manipulation with network investigation
- Developed full-stack application (Python/FastAPI, React, WebSocket) with Decision Memory Bank for fraud decision tracking and real-time monitoring

Awards and Achievements

- Solved over 500 problems on LeetCode and rated Specialist (1400+) on Codeforces
- Secured top 130 among 52000+ participants in Amazon HackOn 2025
- Selected for Amazon ML Summer School 2024 and 2025, among only 3,000 participants nationwide, focusing on advanced machine learning concepts and industry applications