YASH KUMAR SAINI

Full-Stack Engineer — TypeScript/Node.js, React/Next.js & Applied AI/ML

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PROFESSIONAL SUMMARY

Full-stack engineer with 4+ years shipping production web applications end-to-end, progressing from SDE to SDE II at Locofast. Strong in TypeScript/JavaScript and Node.js, building backend services with Nest.js/Express.js and frontend user journeys in React/Next.js, with sound system design and architecture judgment across the full SDLC — planning, implementation, testing, deployment, and production maintenance. Comfortable taking a feature from ambiguous requirements to a scalable, observable, production-ready release, and used to collaborating closely with design, product, and QA to refine feature scope. Building an applied AI/ML foundation (PyTorch, computer vision, deep learning) through an M.Tech in AI at IIIT-Delhi, and looking to bring that same engineering rigor to building AI- and agent-powered product features.

CORE TECHNICAL SKILLS

Frontend: React.js, Next.js, Redux/Redux Thunk, modern web application development

Backend: Node.js, TypeScript, JavaScript, Python, Express.js, Nest.js, RESTful API design, Microservices Architecture

Cloud & Delivery: AWS (Lambda + core services), Serverless Architecture, CI/CD pipelines, Git, Code Review & Engineering Standards

System Design & Data: System Design, Distributed Systems, MySQL, Sequelize/Objection ORM, Query & Caching Optimization

Applied AI/ML Foundation: PyTorch, Computer Vision, YOLO, Deep Learning — hands-on model-building background, pursuing M.Tech in AI, adapting quickly to AI-assisted and agentic development workflows

PROFESSIONAL EXPERIENCE

Software Development Engineer II (SDE II) | *Locofast Online Services Pvt. Ltd.* **Apr 2024 – Aug 2025**

- Contributed across the stack to deliver product features end-to-end — from architecture and implementation to release — improving system performance, modularity, and reliability.
- Applied system design principles to build scalable, maintainable backend microservices and REST APIs, optimizing MySQL and caching for production load.
- Designed and shipped serverless AWS Lambda functions (Node.js), streamlining CI/CD-driven deployment workflows and cutting infrastructure overhead.
- Led end-to-end development of an online warehouse management system — partnering with stakeholders to refine requirements, then owning architecture and delivery to production.
- Set engineering guidelines, drove code reviews, and mentored junior engineers, raising code quality and delivery consistency.
- Partnered with design, product, and QA to refine feature scope and resolve complex production incidents, improving application stability.

Software Development Engineer (SDE I) | *Locofast Online Services Pvt. Ltd.* **Jul 2022 – Mar 2024**

- Built backend services and APIs with Nest.js and Express.js, using Sequelize/Objection ORM to manage relational data models across production services.
- Delivered high-impact, full-stack features in Next.js/React that improved application performance and navigation for end users, managing state with Redux/Redux Thunk.

Teaching Assistant (part-time, alongside M.Tech) | *IIIT-Delhi* **Aug 2025 – Present**

- Support faculty delivering tutorials and labs for Data Structures & Algorithms, Advanced Programming, and Mathematics while completing graduate coursework in AI/ML.
- Evaluate assignments and mentor students on debugging, problem-solving, and implementation.

SELECTED APPLIED AI/ML PROJECTS

Precision Deweeding System for Wheat Crops — Autonomous Robotics Pipeline

- Engineered an end-to-end perception-to-actuation pipeline (RGB-D/NIR input → detection → depth estimation → 3D localization → ROS 2), integrating computer vision, edge AI, and IoT sensing; the YOLOv8s detector achieved 0.7533 mAP@0.5, 80.03% precision, and 67.27% recall.

Neural Vault & Robot Perception — Applied ML/Robotics Systems

- Built a neural network-based image storage system (ResNet-101) encoding images into network weights, achieving 42.06 dB average PSNR; separately built object perception/manipulation pipelines integrating a robotic arm (uFactory Lite 6 / xArm) with Intel RealSense depth sensing.

EDUCATION

M.Tech, Artificial Intelligence and Machine Learning — IIIT Delhi | 2027 (Expected) | CGPA: 6.13/10

B.Tech / B.E., Electronics and Communication Engineering — Thapar Institute of Engineering and Technology | 2022 | CGPA: 7.96/10

CERTIFICATIONS & ADDITIONAL INFORMATION

Web Development (Internshala) | CS Minor | Languages: English, Hindi | Interests: Robotics, Tech Blogging, Competitive Coding