Nidhi Joshi

AI/ML Engineer | Computer Vision & Generative AI | Robotics & Automation

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Professional Summary

AI/ML Engineer with 5+ years of experience building production-grade ML systems and automation platforms across healthcare, robotics, and enterprise IT. Skilled in Python, computer vision, and RAG pipelines, with proven ability to lead projects, mentor engineers, and establish best practices in Agile and CI/CD environments. Adept at bridging research prototypes into scalable deployments, improving efficiency, compliance, and personalization for end users.

Professional Experience

Freelance AI/ML Engineer | Bangalore, India *Dec 2024 – Present*

- Spearheaded design of a Smart Meal Planner App, leveraging RAG and vector DBs to deliver personalized meal plans; scoped features, designed pipelines, and led deployment strategy.
- Directed development of email marketing automation in n8n with Gmail API integration, tracking pixels, and engagement dashboards; established CI/CD pipelines for continuous delivery.
- Built and productized a lead generation platform (Streamlit + Google Maps API) with enrichment, deduplication, and HubSpot/WhatsApp integration; collaborated with business stakeholders to shape outreach workflows.
- Mentored junior engineers on automation best practices and contributed to open-source extensions for n8n.

AI/ML Engineer – Escarda Technologies | Berlin, Germany *Jan 2023 – Sep 2024*

- Led algorithm development for autonomous robotics weed detection, achieving 92% accuracy and reducing chemical usage by 40%; optimized deployment on Jetson Nano with containerized workflows.
- Guided a cross-functional team to deliver Smart Checkpot IoT monitor, combining YOLOv8, Raspberry Pi, and sensors for real-time plant health; set up test automation and reproducibility pipelines.
- Standardized Agile sprint processes and code review frameworks, raising team velocity and quality; coached junior engineers on Python best practices and CI/CD adoption.

Software Engineer – Harman International | Stuttgart, Germany *Feb 2020 – Sep 2022*

- Drove development of CNN-based vision modules for vehicle speed/orientation, achieving 95% accuracy and integrating into infotainment platforms.
- Reduced system resource consumption by 25% through C++ optimization and Python test harnesses.

Application Engineer – DMG Mori India Pvt. Ltd. | Bangalore, India *Aug 2017 – Aug 2019*

- Delivered robotic automation for CNC workflows with Kuka arms, cutting loading time by 19%.
- Designed motion validation scripts and PLC integration; collaborated with the operations team to adopt new process flows.

Education

M.Sc. Information Technology | University of Stuttgart, Germany

B.E. Electronics & Communication | Ramaiah Institute of Technology

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Technical Skills

Languages:	Python (5+ yrs), C++, Bash, SQL
Frameworks:	PyTorch, TensorFlow, OpenCV, YOLOv8, LangChain, HuggingFace
Automation & Platforms:	n8n, Docker, GitHub Actions, AWS, NVIDIA Jetson, Raspberry Pi
Practices:	Agile, CI/CD, Test Automation, Code Reviews, Mentoring