

Yash Khairnar

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EDUCATION

San Jose State University

M.S. Computer Science

San Jose, CA

Aug. 2025 – May 2027

Savitribai Phule Pune University

B.E. Computer Engineering; CGPA: 9.0/10.0

Pune, India

Jun. 2020 – Jun. 2024

SKILLS

Programming: Python, C++, JavaScript, TypeScript, SQL, Shell

Backend: FastAPI, Flask, Node.js, Express.js, REST APIs, Microservices, Asynchronous Processing

Databases & Caching: PostgreSQL, SQLAlchemy ORM, MongoDB, DynamoDB, Redis

Cloud & DevOps: AWS Lambda, Cognito, S3, AWS CDK, Docker, Kubernetes, Git, Linux

Frontend: React, Next.js, React Native, Tailwind CSS

Foundations: Data Structures & Algorithms, OOP, API Design, System Design, Distributed Systems

EXPERIENCE

Software Engineer

Jul. 2024 – Jun. 2025

Accurate Industrial Controls Pvt. Ltd.

Pune, India

- Led a **6-member** ML and full-stack team to deliver Neurogen, a remote generator-monitoring platform with anomaly detection, predictive maintenance, and RUL estimation, reaching **93%** accuracy across **500+** hours of telemetry data.
- Migrated an LPG-cylinder inspection backend from Node.js to ROS; deployed **YOLO**, **EfficientAD**, **PaddleOCR**, and **NVIDIA Triton Server** to eliminate manual inspection with **97%** detection accuracy.
- Optimized **ONNX/TensorRT** inference on **Linux/CUDA** with multithreaded processing and frame skipping, cutting latency by **40%** and reaching **50 ms** inference.
- Developed an ANPR Windows application to control a PTZ camera and track vehicle entry and exit with **YOLOv11** and **PaddleOCR**, reaching **97%** plate-detection accuracy.

Artificial Intelligence Intern

Aug. 2023 – Nov. 2023

Accurate Industrial Controls Pvt. Ltd.

Pune, India

- Engineered a copper-coil inspection system with **PatchCore** and **YOLOv8**; added object tracking and image compression to improve inference efficiency and reduce false positives in production.
- Developed a video-streaming interface with **Flask**, **React**, and **Node.js/Express** to visualize live detection results and factory-floor inspection status.
- Implemented and evaluated **A*** and **Potential Fields** algorithms for autonomous robot navigation in **ROS** and **Gazebo** on Linux.

Deep Learning Intern

Nov. 2022 – Feb. 2023

ResoluteAI Software Pvt. Ltd.

Bangalore, India

- Engineered a Python resume parser with **PyPDF2** and **Regex**, automating **70%** of manual data entry through structured **JSON** extraction.
- Created a facial-recognition attendance system with **MTCNN** and a custom ANN classifier, delivering **90%** accuracy with less than **2%** false-positive rate.

PROJECTS

Nook – Cafe Discovery App | React Native, Next.js, FastAPI, Python, AWS CDK

- Designed and shipped a full-stack cafe-discovery platform with a **React Native** mobile app and a **Next.js/TypeScript** business dashboard, deployed to the **Google Play Store**.
- Developed **FastAPI** services backed by **PostgreSQL** and **SQLAlchemy ORM** for geolocation-based discovery, live occupancy, reservations, and role-based workflows.
- Provisioned a serverless AWS architecture through **AWS CDK**, connecting **Lambda**, **Cognito** authentication, and **S3** presigned URLs for secure file uploads.

ResuMatch – Resume Optimization Platform | Agent AI, Flask, Next.js, PostgreSQL

- Created a full-stack platform to analyze resumes, retrieve job listings, and generate **role-aware recommendations**.
- Designed an **Editor/Judge agent pipeline** with scoring and feedback loops; orchestrated **REST APIs** and asynchronous workflows for job scraping, resume scoring, and content generation.