Yash Prabhakar Khairnar

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Education

Master of Science in Computer Science — August 2025 – May 2027
San Jose State University — *San Jose, CA*
Coursework : Machine Learning, Cloud Computing, Graduate Writing

Bachelor of Engineering in Computer Engineering — June 2020 – June 2024
Savitribai Phule Pune University — GPA: 9.0/10 — *Pune, India*

Technical Skills

Programming Languages: Python, C++, JavaScript, TypeScript, HTML/CSS
Frameworks: React, Next.js, Node.js, Django, Flask, Express.js, FastAPI, Tailwindcss
AI/ML: TensorFlow, PyTorch, Keras, ROS, Scikit-learn, LangChain, Streamlit, OpenCV, YOLO, NVIDIA Triton, ONNX, spaCy, NLTK, NumPy, Pandas, Matplotlib
Databases: MySQL, SQL Alchemy, MongoDB, Mongoose, PostgreSQL, Prisma, Redis, DynamoDB
Cloud & DevOps: AWS, Cloudflare, Git, Docker, Kubernetes

Experience

Software Engineer — July 2024 – June 2025
Accurate Industrial Controls Pvt. Ltd. — *Pune, India*

- Led a 6-member cross-functional team to develop a remote generator monitoring system with anomaly detection, Remaining Useful Life prediction, and predictive maintenance models, achieving 93% accuracy on 500+ hours of operational data
- Built an ANPR application using YOLOv11 and PaddleOCR with preprocessing pipelines, improving plate detection and text extraction to 97% accuracy
- Eliminated 100% of manual intervention in LPG cylinder inspection by designing a ROS-based pre-filling pipeline with NVIDIA Triton Server, YOLO for defect detection, and EasyOCR for text extraction, producing 93% model accuracy

Artificial Intelligence Intern — August 2023 – November 2023
Accurate Industrial Controls Pvt. Ltd. — *Pune, India*

- Automated an anomaly detection pipeline for copper coils by leveraging PatchCore and YOLO for defect identification and object tracking, with image compression to optimize performance
- Reduced inference latency of a real-time video streaming app to 50 ms through pipeline optimization, GPU acceleration, multi-threading, and frame skipping
- Researched and evaluated pathfinding and collision avoidance algorithms like A* and Potential Fields for an autonomous boat navigation system

Deep Learning Intern — November 2022 – February 2023
ResoluteAI Software Pvt. Ltd. — *Bengaluru, India*

- Created a facial recognition attendance system with 90% accuracy and less than 2% FPR by combining MTCNN-based detection/alignment and an ANN for feature matching
- Engineered a PDF resume parser using PyPDF2 and Regex to extract structured data into JSON, automating 70% of manual data entry and improving efficiency
- Developed and deployed YOLO models for industrial automation, achieving 92% detection accuracy and streamlining inventory tracking through end-to-end ML pipelines

Projects

Slique - Job Search Platform | *Next.js, Tailwindcss, AWS, PostgreSQL, Prisma, OAuth, Google Gemini API*

- Built a full-stack platform connecting fashion models and brands with scalable backend and responsive UI
- Implemented real-time chat, notifications, and workflows for hiring, job posting, contracts, and scheduling
- Integrated Gemini API to enable GenAI-based job post and resume generation, streamlining casting

4Bit - Early Cancer detection | *React, Flask, FastAPI, Keras, Scikit-learn, Pandas, Matplotlib*

- Analyzed 1000+ plasma and serum samples to identify key cancer-causing metabolomic biomarkers
- Applied statistical tests like Shapiro-Wilk, t-Test, Kruskal-Wallis and Random Forest for feature elimination
- Trained Ridge/XGBoost to achieve 100% plasma and 90.91% serum accuracy, enabling earlier cancer detection