Rutvik Yamkanmardi

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TECHNICAL SKILLS

Programming Languages: C, C++, Python, Java, Go, JavaScript, SQL Backend & Frameworks: Node. is. Express. is. Diango. RESTful APIs

Databases: MySQL, PostgreSQL, Cassandra, MongoDB

Cloud & DevOps: AWS, Google Cloud Platform (GCP), AWS Lambda, Docker, Kubernetes, Github Actions, CI/CD

Pipelines, Automation, Webhooks

AI & Data Processing: Deep Learning, Neural Networks, TensorFlow, PyTorch, CUDA, OpenCV, Computer Vision,

Pandas, NumPv

Robotics & Embedded Systems: ROS2, Robotics Middleware, Nvidia Jetson

EXPERIENCE

SAP UCC March 2024 - Present

Backend Engineer (Team Lead)

• Led a team of 3 developers, coordinating deliverables and resolving technical conflicts to ensure timely completion.

- Implemented MongoDB for efficient data storage, speeding up data retrieval by 1.5 times
- Redesigned website backend architecture using Node.js and Express.js, leading to a 10x speedup in load times.

Chico State Enterprises

June 2024 - Present

Research Scientist (Computer Vision)

- Developed 3D point cloud generation techniques from 2D video data using MATLAB and Python, employing SURF feature extraction.
- Achieved depth estimation performance comparable to Lidar systems by utilizing a single GoPro camera and custom MATLAB scripts
- Applied OpenCV for advanced computer vision tasks, enhancing object detection accuracy

May 2022 - June 2023 IndiaMart

Software Engineer

- Resolved a longstanding bug in legacy PHP and Golang codebases by optimizing data structures, restoring access for customers with extensive product catalogs
- Developed and maintained high-traffic APIs handling millions of daily requests, ensuring system scalability and reliability.
- Led database and server migrations, transitioning to Cassandra and RabbitMQ to reduce latency and improve system responsiveness.

EDUCATION

California State University - Chico

Master of Science in Computer Science

Indian Institute of Information Technology - Dharwad

Bachelor of Technology in Computer Science and Engineering

PROJECTS

Crosswalk Pedestrian Safety System | OpenCV, Jeston Orin, C++, Yolo Object Detection

May 2024

June 2025

GPA: 4.0/4.0 May 2022

GPA: 3.52/4.0

• Built a CUDA-accelerated YOLO-based pedestrian detection system on Jetson Orin with 90%+ accuracy.

Multiplayer Chess Website | Django, JS, GCP, Postgres

October 2024

• Developed a real-time, Dockerized Django chess app with WebSocket support and GCP-scaled backend

Voice-Activated Auto Navigating Robot | ROS2, VOSK, GPT-3.5, Turtlebot, Python, Yolo

December 2024

• Designed a ROS2 Turtlebot with VOSK wake-word detection, GPT-3.5 command parsing, and YOLO-based obstacle avoidance