

Akshay Srinivas N

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PROFESSIONAL SUMMARY

Backend-focused Software Engineer with experience building AI-powered systems, multi-agent applications, computer vision solutions, and scalable full-stack platforms. Led engineering teams, deployed production AI solutions for industry clients, and developed intelligent systems spanning autonomous decision-making, RAG pipelines, and real-time APIs.

WORK EXPERIENCE

Team Lead – Web Development (Internship) | Spirezen Enterprises

Nov 2025 – Mar 2026

- Architected and led delivery of production web applications serving company clients, designing scalable React frontend and FastAPI/Node.js backend systems that improved platform reliability and reduced bug-related downtime by ~35%.
- Managed a team of 3–4 engineers, conducting code reviews, sprint planning, and stakeholder communication to ensure consistent on-time feature delivery across 4+ product releases.
- Owned the full development lifecycle — from requirements breakdown through implementation, QA, and deployment — reducing release cycle time by standardizing CI/CD workflows.

AI/ML Engineer (Freelance) | Manufacturing Client (Industry Project)

Jul 2025 – Oct 2025

- Designed and trained a production-ready YOLO-based computer vision model for real-time anomaly detection on a manufacturing line, achieving 91%+ detection accuracy on a custom industry dataset.
- Built a complete ML pipeline: data collection, annotation using CVAT, model training, validation, and deployment — packaged as a standalone Windows executable (.exe) for zero-dependency deployment across client infrastructure.
- Established testing protocols and validation benchmarks ensuring model robustness across varied lighting and defect-type conditions in the production environment.

PROJECTS

Wocal – Cross-Platform WorkTime Tracker | Python, PySide6/QML, Firebase [GitHub](#) | [Demo](#)

Apr 2026

- Built and shipped a cross-platform desktop productivity app with a full installer, landing page, and 30–40 active users — featuring real-time session tracking, daily goal management, and streak monitoring.
- Engineered offline-first data synchronization using Firebase Auth and Realtime Database with local JSON caching, ensuring zero data loss on network interruptions across devices.
- Developed an interactive analytics dashboard with activity heatmaps and performance metrics, enabling users to visualize historical productivity trends — reducing manual tracking effort by ~80%.

Real-Time Collaborative Flash Platform | Node.js, Express, Socket.IO [GitHub](#) | [Demo](#)

Mar 2026

- Built a real-time collaborative backend supporting concurrent multi-user sessions with sub-100ms text synchronization latency using WebSockets via Socket.IO.
- Designed a room-based session architecture with dynamic connection state management and isolated data streams, enabling secure multi-tenant collaboration at scale.
- Optimized WebSocket broadcasting with event-driven patterns, minimizing server overhead and sustaining reliable message delivery under high-frequency concurrent transmission.

EDUCATION

B.E. Computer Science and Engineering

Sep 2024 – May 2028

Sri Ramakrishna Institute of Technology, Coimbatore | CGPA: 8.67 / 10

TECHNICAL SKILLS

Languages: Python, JavaScript, C, C++, Java, Go

AI / ML: PyTorch, OpenCV, YOLO, LangChain, Computer Vision, Machine Learning, Scikit-learn

Web & Frameworks: React, Node.js, FastAPI, Flask, Express, Socket.IO, HTML, CSS

Databases: PostgreSQL, MongoDB, MySQL, SQLite, Oracle, Firebase Realtime Database

Tools & Platforms: Git, GitHub, Linux CLI, CVAT, Docker (basic), REST APIs, WebSockets

Core CS: Data Structures & Algorithms, OOP, System Design, Optimization

ACHIEVEMENTS & RECOGNITION

- Finalist – Shine Healthcare Hackathon '25, Kalam Awards 2025, IIC Regional Meet 2025, SRCAS 2.0 Hackathon '25