

Karneeshkar V

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EDUCATION

Vellore Institute of Technology

Chennai, India

B.Tech. Electronics & Computer Engineering; GPA: 8.66/10

TECHNICAL SKILLS

Languages: Python, Go, TypeScript/JavaScript, Rust, C/C++, SQL, Bash

Backend & Cloud: Node.js, FastAPI, Flask, REST APIs, AWS (EC2, S3, Lambda), Docker, CI/CD, Git

Frontend & Mobile: React Native, Next.js, React, iOS/Android deployment

AI/ML: PyTorch, TensorFlow, LLM fine-tuning (RLHF/GRPO), RAG pipelines, multi-agent systems, OpenCV

Data: PostgreSQL, MongoDB, Redis, MySQL, SQLite, real-time streaming pipelines

Embedded: ESP32, STM32, Zephyr RTOS, LoRaWAN, MQTT, sensor fusion

EXPERIENCE

Software Engineer II / Tech Lead

Jul 2025 – Present

2Cents Capital

Bengaluru, India

- First engineer hire; built and led a team of 10+ across mobile, AI, and quantitative finance — defined technical architecture, hiring bar, and engineering processes from day zero.
- Shipped Valura AI (iOS + Android), an AI-powered investment platform, from scratch to production — 4.8-star App Store rating, sub-500 ms cold-start latency, thousands of active users.
- Built a multi-agent AI system handling onboarding, support, and market intelligence — cut manual support tickets by 40% and reduced operational costs by 30%.
- Designed algorithmic trading infrastructure: real-time market data ingestion, backtesting framework, and automated order execution pipeline processing live trades.
- Established CI/CD, automated testing, and observability stack — reduced post-release bugs by 60% and maintained 95% on-time release cadence.

Software Engineer Intern

Jan 2025–Jun 2025

Visteon (Jaguar Land Rover)

Chennai, India

- Built diagnostic routines for JLR vehicle platforms with 96% anomaly detection accuracy; optimized SOME/IP middleware in C, cutting service-discovery latency by 25%.
- Achieved 99.8% unit-test coverage across ASIL safety-critical code paths with zero compliance deviations.

Automation Intern

Dec 2024–Jan 2025

Procter & Gamble

Hyderabad, India

- Deployed IIoT telemetry across 5 manufacturing lines ingesting 2M+ data points/day at 99.9% uptime — eliminated 40% of manual quality inspections.

IoT Developer

May 2024–Jun 2024

Tynatech Ingenious

Noida, India

- Built REST API gateway connecting 50+ LoRaWAN edge devices to cloud; optimized UART layer for 30% throughput gain and implemented MQTT streaming at 100+ msg/s.

R&D Intern

Aug 2023–Sep 2023

Hindustan Aeronautics Ltd (HAL)

Bangalore, India

- Optimized autopilot control algorithms reducing computational overhead by 22%; built a C++ simulation framework covering 200+ control-system test scenarios.

PROJECTS

- Level2 — Gym Management Platform** | *React Native, Go, AWS* 2025
- Shipped a cross-platform gym management app live on iOS App Store and Google Play — workout tracking, member management, and scheduling for gym owners and trainers.
 - Built event-driven sync architecture achieving sub-second consistency across distributed mobile clients.
- Naar — Restaurant Operations Platform** | *Next.js, Node.js, PostgreSQL, AWS* 2025
- Built and deployed a full-stack restaurant platform (naarkuwait.com) — admin dashboard, kitchen display, and customer ordering — reducing order processing time by 50%.
 - Implemented role-based access control and real-time order pipeline supporting concurrent multi-interface sessions.
- LLaMA 3.1 Fine-Tuning for Code Reasoning** | *Python, PyTorch, GRPO, Hugging Face* 2025
- Fine-tuned LLaMA-3.1 8B using GRPO (DeepSeek-R1 methodology) with Gemma 3 as reward model to improve chain-of-thought code reasoning.
 - Achieved 15% pass@1 improvement on custom benchmarks and 10% uplift on public coding benchmarks.
- Social Media Automation Engine** | *Python, FastAPI, Redis, AWS* 2024
- Built cloud-native service processing 1,000+ daily interactions at 99.5% uptime with LLM-powered sentiment analysis (88% accuracy).
 - Implemented Redis caching layer that reduced external API calls by 65% and kept p50 latency under 500 ms.
- VR Gesture-Recognition Gloves** | *ESP32, Unity, C#, ML* 2024
- Built ML-powered VR gloves classifying 15+ hand gestures at 92% accuracy via flex-sensor signal processing on ESP32.
 - Created configuration UI mapping gestures to 20+ system commands; integrated with Unity for gaming and assistive-tech use cases.
- Edge Sports Analytics System** | *ESP32, PyTorch, OpenCV, Flask* 2024
- Deployed real-time computer vision on ESP32 for biomechanical analysis; fused IMU, VO₂ max, and temperature sensor data.
 - Built Flask/Plotly analytics dashboard and trained ensemble classifier delivering actionable performance feedback to athletes.