Suraj Sreeprakash Menon

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EDUCATION

- **Dayananda Sagar College of Engineering** — Bengaluru, KA
  B.E in Information Science (VTU); CGPA: 8.9 — *2022 - 2026*
- **Christ PU College** — Bengaluru, KA
  State Board; 88% — *2020 - 2022*

SKILLS

Languages: Python, JavaScript/TypeScript, SQL, Bash

Frontend: React, Next.js, Vite, Tailwind CSS, Recharts

Backend: FastAPI, Node.js, RESTful APIs

Databases & Cloud: PostgreSQL, Supabase, Firebase, SQLite, Vercel

DevOps & Tools: Git, GitHub Actions, Docker, RabbitMQ, Postman

EXPERIENCE

- **Full Stack Developer Intern** – *BharatCrest Pvt. Ltd.*   June 2025 - August 2025
  - Engineered **HRMatcher** recruitment platform automating candidate screening by processing 100+ resumes in under 5 minutes using **Google Gemini API** for intelligent skill-based filtering and similarity ranking.
  - Developed full-stack restaurant management system (**React + FastAPI**) with real-time order tracking, billing, and automated inventory management with low-stock alerts.
  - Optimized frontend bundle and implemented route-level code splitting and image lazy-loading; observed **20–30% reduction in client-side load times** in Lighthouse audits.

PROJECTS

- **NammaLakes** – *FastAPI, RabbitMQ, Vite+React, Recharts, ML (Isolation Forest)*
  - Architected distributed IoT system processing 17,000+ data points daily from 3 sensors at 5-second intervals using **RabbitMQ** message queuing and fault-tolerant **FastAPI** microservices with structured logging.
  - Developed real-time analytics dashboard with rapid visualization updates using **Vite + Recharts**, integrating **Isolation Forest** ML model for automated water quality anomaly detection.

- **Linux Starter Pack** – *Python, Next.js, Tailwind CSS*
  - Developed cross-platform TUI automation tool (**Python/Textual**) supporting 12 major Linux distributions with automated package manager detection, dependency resolution, and intelligent fallback handling.
  - Implemented parallel mirror latency checks and fallback selection to improve average package download reliability and reduce installation times by 60%.
  - Designed interactive showcase website using **Next.js** and **Anime.js**, for showcasing the tool's capabilities through interactive animations.

- **TravelEase** – *Next.js, Supabase, Google Maps API*
  - Developed full-stack trip planning platform with **Google Maps API** integration for route optimization, geospatial queries, and complex multi-waypoint itinerary generation.
  - Optimized API efficiency by implementing selective field queries (name, rating, photo) to minimize payload size by 65%, while adding real-time collaboration features via **Supabase**.

PUBLICATIONS

- **Suraj Menon** et al., "NammaLakes: IoT-Based Real-Time Distributed Lakes Monitoring System," *International Journal of Latest Technology in Engineering Management and Applied Science*, 2025. [DOI]
  Designed distributed IoT architecture with RabbitMQ message queuing and ML-based anomaly detection for real-time water quality monitoring.

CERTIFICATIONS

- **The Complete Full-Stack Web Development Bootcamp** – Udemy, 2025   [View Certificate]