

ADITHYA R KULKARNI

Bengaluru, Karnataka

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Summary

Innovative Full Stack Developer and UI/UX Enthusiast with a strong foundation in modern web technologies (Next.js, Flutter) and digital content creation. Managing Director of a 200+ member tech community, proving strong leadership and strategic vision. Passionate about bridging the gap between engineering performance and premium user experience.

Technical Skills

Languages: TypeScript, JavaScript (ES6+), C++, Java, Dart, Python (Data Science)

Frontend & UI: Figma, Next.js 16, React 19, Tailwind CSS 4, Flutter, Framer Motion, Chart.js

Backend & Database: Node.js, Express.js, Supabase, MongoDB, PostgreSQL, SQLite

AI & IoT: Hugging Face API, Gemini API, Meta Llama 3, Prompt Engineering, ESP32/Arduino, WebSockets

Tools & DevOps: Git/GitHub, Vercel, Docker, SheetJS, Razorpay Integration, NextAuth.js

Creative & Design: DaVinci Resolve, Adobe Creative Suite, Canva, Video Editing, Color Grading, Sound Design, Graphic Design, Script Writing

Core & Leadership: Event Management, Brand Strategy, Communication, Leadership

Spoken Languages: English (Professional), Kannada (Native), Hindi (Conversational), Telugu (Understanding), Sanskrit (Basic)

Experience

OSCode Student Chapter SaIT

Bengaluru, Karnataka

Managing Director

Sep 2025 – Present

- Lead a 200+ member campus tech community, organizing workshops, tech talks, and large-scale events.
- Directed community growth and strategic vision, fostering a mission-driven environment for contributors and stakeholders.

Freelance

Remote

Software Developer

Jan 2024 – Present

- Delivered end-to-end full-stack web and mobile solutions for clients using Next.js, Flutter, and Supabase, ensuring high performance and scalability.
- Translated complex client requirements into technical specifications, deploying production-grade applications that enhanced business operations.

Freelance

Remote

Video Editor

~2023 – Present

- Managed all post-production for a short film and multiple YouTube videos, including editing, color grading, sound design and audio.

InAmigos Foundation

Remote

Creative Designer (Intern)

Nov 2025 – Dec 2025

- Design social media graphics, posters, and brand assets for a non-profit's digital campaigns.

Technical Projects & Initiatives

Homewise (*Live In Production*) | Next.js 16, Flutter, MongoDB — 🏠 homewiseshop.online

- Architected and deployed a fully operational, live luxury marketplace ecosystem serving active users, delivering a high-performance web dashboard and native Android app using **Next.js 16** and **Flutter**.
- Engineered a scalable backend using **Next.js Server Actions** and **MongoDB Atlas**, designing flexible schemas to handle dynamic product catalogs and real-time inventory updates.
- Implemented secure, multi-gateway transactions (Razorpay, PhonePe) and authenticated user sessions via **NextAuth.js** (JWT/OAuth).
- Designed a reliable dual-provider notification system (Brevo & Resend) achieving 100% delivery rates for transactional emails and OTPs.

RegisterYu | Flutter, Next.js 15, Supabase, PostgreSQL

- Spearheaded the development of a digital campus ecosystem to automate event lifecycles, replacing legacy manual workflows for the Sambhram Institute.

- Built a reactive backend infrastructure with **Supabase** and **PostgreSQL**, leveraging **Row Level Security (RLS)** and real-time subscriptions for live participant tracking.
- Developed a comprehensive Admin Dashboard and mobile application with QR-based digital ticketing to streamline high-throughput on-site entry implementation.
- Released core modules as **Open Source**, establishing an institutional framework for collaborative student development.

AI Code Analysis Arena | *Hugging Face, Gemini API, Node.js, SQLite*

- Developed a sovereign "Code Debate" engine using **Hugging Face** models and **Gemini API** to simulate conflicting reviews between "Performance" and "Readability" perspectives.
- Architected a hybrid inference layer utilizing pre-computed simulations and real-time LLM processing for instant, high-fidelity developer feedback.
- Engineered automated regex-based scoring logic to convert unstructured LLM outputs into quantitative metrics (1-10) for evaluating code quality.

Sambhram Library (Sam-Lib) | *JavaScript, SheetJS, Hardware Integration*

- Deployed a barcode-driven attendance system interfacing with custom HID hardware, automating check-in/out processes for thousands of student records.
- Designed an **Offline-First** architecture using LocalStorage to ensure 100% operational uptime during network failures.
- Implemented conflict resolution algorithms for bulk USN-to-Barcode mapping using SheetJS, significantly reducing administrative overhead.

IoT Air Quality Monitor | *ESP32, C++, Node.js, WebSockets*

- Built a real-time environmental monitoring system on the ESP32 microcontroller with an embedded SPIFFS web server.
- Achieved sub-second data streaming for CO@₂ and NO@_x levels using **WebSockets**, bypassing the need for external cloud hosting.
- Integrated a Random Forest predictive model to forecast "Abnormal" air quality events based on historical sensor trends.

Open Source Restaurant POS | *Next.js 16, React 19, Tailwind 4*

- Developed a "Glassmorphism" based POS interface using **React 19 RC**, prioritizing touch-target sizes and visual hierarchy for fast-paced service environments.
- Created a strictly typed modular component library in **TypeScript** to ensure design consistency and reduce runtime errors.

Education

Sambhram Institute of Technology

Bengaluru, Karnataka

Bachelor of Engineering in Computer Science (Affiliated to VTU)

Expected June 2027

- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming (Java/C++), Database Management Systems, Web Application Development, User Interface Design.

Awards & Honors

Best Short Film Award | *Creative Direction & Post-Production*