Aditya Raj

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Summary

Computer Science Engineering student with hands-on experience building full-stack web applications using modern frontend and backend technologies. Skilled in designing REST APIs, managing relational databases, and deploying scalable services using Node.js, PostgreSQL, and Supabase. Experienced with React and Next.js on the frontend, with a track record of shipping production-grade applications from schema design to deployment.

Technical Skills

Programming Languages: JavaScript, TypeScript, Python, Java, C++
Frontend: React.js, Next.js, HTML5, CSS3
Backend: Node.js, Express.js, REST APIs, Full-Stack Development
Databases: PostgreSQL, MongoDB, SQL, Supabase
Tools: Git, Linux, Vercel, Postman
Concepts: Data Structures, API Design, Authentication & RBAC, Backend Architecture, SDLC, Agile, Debugging

Experience

Software Engineering Intern Nov 2025 – April 2026
YMS Financial Pvt. Ltd.

- Produced backend workflows and RESTful APIs powering a live election analytics platform, supporting real-time campaign data across 4+ integrated modules.
- Delivered campaign management features covering constituency tracking, booth-level prediction, and reporting, contributing to 3 major product releases.
- Collaborated cross-functionally to integrate React frontend components with Node.js backend services, ensuring seamless end-to-end data flow.

Website Developer & Manager Intern Apr 2026 – Present
TiniNest Pvt. Ltd.

- Developed and managed a production-ready e-commerce platform using React and Next.js, delivering a responsive and scalable user interface.
- Implemented backend workflows, database integration, and deployment processes using modern web technologies, ensuring smooth end-to-end functionality.
- Elevated application performance and user experience through modular component architecture and efficient data handling.

Projects

Campus AI Live Demo

- Engineered an AI-powered campus assistant platform supporting 3 distinct roles (student, faculty, admin) with granular, role-scoped permission controls.
- Architected a PostgreSQL schema on Supabase spanning 9 modules — Notes, Timetable, Assignments, Chat, News, GPA Calculator, Notifications, Calendar, and Study Tracking — handling complex relational data across all user types.
- Configured row-level security policies and scalable backend workflows, reducing the unauthorized data-access surface across all campus management endpoints.

Election Prediction Platform Live Demo

- Spearheaded a full-stack election analytics and campaign management platform delivering booth-level predictions across 100+ constituencies.
- Designed secure RESTful APIs using Node.js and Express with JWT authentication and RBAC, safeguarding data across 5+ distinct user roles.
- Automated CSV-based bulk ingestion for constituency and booth data, cutting manual data-entry effort by an estimated 70% and powering real-time analytics dashboards.

TiniNest Website Live Demo

- Launched a production-ready children's toy e-commerce platform targeting the Indian market using Next.js 14 and React with a modular component architecture.

- Composed a Supabase backend schema with 7 relational tables (products, orders, reviews, wishlists, coupons, profiles, newsletter) enforced by row-level security policies.
- Streamlined frontend deployment on Vercel, achieving sub-2s load times through lean component structure and automated CI/CD workflows.

Research

Real-Time IoT Monitoring Framework with Edge-Cloud Intelligence Jan 2026 – Present

- Designed a five-layer IoT architecture integrating MQTT, Apache Kafka, edge computing, and cloud-based machine learning for real-time data processing.
- Achieved sub-millisecond edge processing latency (0.02–0.05 ms) and end-to-end latency under 20 ms, improving responsiveness by 40–60% over traditional cloud-based systems.
- Implemented an Isolation Forest-based anomaly detection pipeline achieving 95% detection accuracy with a false positive rate below 0.3%.
- Optimized bandwidth utilization by up to 90% through intelligent edge filtering and data aggregation techniques.

Education

Bachelor of Technology in Computer Science Engineering 2023 – Present
SRM University, NCR Campus, Ghaziabad
CGPA: 8.45