

Sanjai S

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SUMMARY

Full Stack Engineer with a strong track record in architecting high-scale automation systems and secure enterprise platforms. Experienced in optimizing high-throughput workflows handling 15,000+ users and integrating GenAI solutions. Known for end-to-end ownership, from designing robust backends to delivering intuitive user interfaces.

EDUCATION

Indian Institute of Technology Bombay
B.S. in Chemistry
Minor in Design (Industrial Design Centre)

2019 – 2023
CPI: 7.47
CPI: 7.60

PROFESSIONAL EXPERIENCE

Software Engineer | Justdial (HR Automation Team)

(Jan'24 – Present)

- **GenAI HR Assistant (RAG):** Developing an intelligent chatbot using Qwen and MCP (Model Context Protocol); orchestrated tool calling pipelines to automate leave & attendance, fetch Form-16/Payslips, and instantly surface insurance limits & reimbursement guidelines to eliminate manual policy search, featuring seamless human-handoff for referrals and escalations.
- **Candidate Onboarding System:** Engineered a high-throughput onboarding application handling 6,000+ monthly candidates; implemented Aadhar OTP validation and optimized MySQL indexing, reducing data retrieval latency by 40% under heavy load.
- **Leave Management System:** Spearheaded the full-stack development of a Leave Management System serving 15,000+ employees; automated complex payroll and accrual calculations, achieving a 99.9% accuracy rate in monthly processing.
- **Consultant Module:** Pioneered end-to-end development of the Consultant Module, crafting a React.js interface and directing Node.js microservices for streamlined external workforce management, improving consultant assignment rate by 85%.
- **Security & Access Control:** Fortified application security by implementing Role-Based Access Control (RBAC) across modules and integrating Vaults for the encryption of sensitive PII data via secret keys, ensuring strict data compliance.

Full Stack Developer Intern | Skein Technologies Pvt. Ltd

(May'22 – Jul'22)

Mobile application services organization based in Coimbatore, India

- **Mobile App Development:** Designed and optimized user-friendly UI screens for the PlayGroup application using Flutter, collaborating with a 6-member team to ensure cross-platform compatibility and performance.
- **Backend Architecture:** Architected scalable REST APIs using Node.js and MySQL hosted on AWS (EC2/RDS), and configured Firebase for real-time authentication and data synchronization.

KEY PROJECTS

PayDirect | Cross-Border Payment Platform

- Built a secure Fintech Frontend using Next.js and Redux Toolkit, while owning the system architecture for regulated T+2 settlement cycles and cross-border financial flows backed by PostgreSQL for strict ACID compliance.
- Deployed scalable Node.js services on AWS ECS integrated with Cloudflare for DDoS protection, and secured sensitive payment data using industry-standard PGP encryption, reducing security vulnerabilities by over 50%.

GenAI Voice Agent for Sales Automation | Justdial Hackathon

- Developed an end-to-end Voice Bot using OpenAI Whisper for low-latency speech-to-text, Llama 3.1 for natural language reasoning, and High-Fidelity TTS for synthesis, significantly reducing manual sales call volume by automating FAQ resolution.
- Built a real-time analytics dashboard using React.js to visualize conversation metrics, backed by a Dockerized Node.js and MongoDB infrastructure deployed on a private corporate server for data sovereignty.

Indian MMA Analytics & Management Platform

- Architecting a comprehensive "Tapology-style" ecosystem for Indian MMA using React.js and Node.js/MySQL to aggregate extensive fighter statistics, while implementing a specialized Event Management module for officials to log real-time bout scores.
- Establishing granular RBAC and Identity Verification workflows for the secure onboarding of fighters and promoters, alongside a centralized event ticketing system and merchandising marketplace.

Smart Biometric Access Control System | IoT & Computer Vision

- **Biometric Access Control:** Architecting a standalone security system using Raspberry Pi and OpenCV; developed a Face Recognition Engine with Liveness Detection (Blink Analysis) to prevent photo-based spoofing.
- **Hardware-Software Interface:** Devised a custom GPIO control pipeline in Python to trigger electronic door locks upon verified authentication, processing video frames in real-time without external cloud dependencies.

TECHNICAL SKILLS

- **Languages & Frameworks:** TypeScript, JavaScript, Python, C++, Dart, React.js, Next.js, Node.js, Express.js, Redux Toolkit.
- **Cloud, Databases & DevOps:** AWS (ECS, EC2, RDS, S3, Route53), Docker, MySQL, PostgreSQL, MongoDB, Firebase, GitHub.
- **AI, Security & Architecture:** GenAI (Llama 3, Qwen), RAG Pipelines, MCP, OpenCV (Computer Vision), IoT, RBAC, PGP Encryption.