

Abishek Devendran

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SUMMARY

Backend Engineer with a year of experience specializing in building scalable, high-performance systems. Proven ability to architect and optimize complex data pipelines and real-time processing engines. Demonstrated expertise in leading critical infrastructure projects for AI-driven applications, focusing on *low-latency* and *high-throughput performance*.

EDUCATION

Indian Institute of Information Technology, D&M.

B.Tech, Computer Science. CGPA: 8.1

Chennai, Tamil Nadu

Sep. 2020 – May. 2024

EXPERIENCE

Randomwalk.AI

Backend Engineer

Chennai, Tamil Nadu

Jan. 2024 – Present

- **Architected** a scalable **LLM orchestration pipeline** using **Langgraph**, **LlamaIndex**, **FAISS**, **Pinecone**, and **Neo4j** to process diverse, unstructured customer data.
- **Engineered** the pipeline for high-throughput, achieving **sub-5s response times** and over **95% precision/recall** through bilevel optimization of the system's Directed Acyclic Graph (DAG).
- **Lead for AI-driven CCTV Monitoring System at IPL 2025 (Chepauk Stadium for CSK):**
 - * **Designed** and **deployed** the core backend for a real-time AI system handling motion detection, tracking, and facial recognition.
 - * **Built** a highly scalable backend using **asynchronous Python** and an **MQTT-based architecture** to process **thousands of events per second** from a network of **300+ cameras**.
 - * **Developed APIs** to serve a performant SvelteKit dashboard for real-time monitoring and issue reporting.
 - * **Managed** the system for the entire IPL 2025 season, integrating social media sentiment analysis for operational intelligence.

OruPhones

Full Stack Development Intern

Alwar, Rajasthan (Remote)

May. 2023 – Nov. 2023

- **Improved** backend and API performance, reducing **Time to First Byte (TTFB)** by **25%** and overall API response times by 40% through targeted codebase revamps.
- **Hardened** server-side security by implementing robust error handling and a **Redis-cached**, session-based authentication system.
- **Led** the migration of the backend codebase from JavaScript to **100% TypeScript** with **Zod** validation, improving data integrity and developer experience.

PROJECTS

Streakify (Personal Project) | *SvelteKit, Tailwind CSS, PostgreSQL, Better Auth, Redis*

2025

- Developed a full-stack habit tracker with secure user authentication and a **Redis-based caching layer** for session management.
- Built in 4 days, demonstrating rapid, full-cycle development from concept to deployment.

Chain Reaction Multiplayer | *ReactJS (Vanilla SPA), ExpressJS, Web Sockets*

2021

- Engineered a real-time multiplayer game using **WebSockets** for persistent, **low-latency communication** between clients and an **Express.js** server.

IoT Mining Helmet | *Arduino, ESP01S, MQTT*

2022

- Designed a proof-of-concept smart helmet with a dynamic sensor mesh network, using **MQTT** for efficient, **event-driven communication**.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, C/C++

Backend: ExpressJS, Langchain (Py/TS), LlamaIndex, Pandas, SciKit-Learn, Socket.io

Databases & Caching: PostgreSQL, Redis, Neo4j, SQLite, FAISS, Pinecone, MQTT

Frontend: SvelteKit, ReactJS, NextJS, Tailwind CSS, Framer Motion

DevOps & Tools: Docker, Git/GitHub, Figma, Zod