

ABHISHEK SINGH

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Education

Indian Institute of Information Technology Senapati, Manipur

Aug 2023 – May 2027 (expected)

B.Tech in Computer Science and Engineering

CGPA: 8.07/10.0

Experience

Cardium Games

May 2026 – Aug 2026

Backend Developer Intern

- Architected a scalable Node.js backend leveraging **Express.js** and **Supabase (PostgreSQL)**, designing robust relational schemas to power invite-based authorization, live matchmaking queues, and on-chain pack minting infrastructure.
- Engineered a complex invite and referral engine with rate-limiting, permanent single-use access codes, and automated payout distribution logic, significantly optimizing secure platform onboarding.

Solia Network

Oct 2025 – Jan 2026

Blockchain developer Intern

- Engineered a full-stack escrow and payment routing platform using **Next.js**, **TypeScript**, and **Firebase**, implementing server-side market controls, a reputation-based tier system, and real-time trade history synchronization.
- Developed and optimized secure backend settlement logic in **Rust**, integrating automated dispute resolution, role-based access control, and 2FA-protected admin operations across multiple payment rails.

Projects

MaskMind

Github | Demo

- Built a modern anonymous feedback web app inspired by NGL, enabling users to generate public shareable links and receive anonymous messages in real time
- Implemented inbox moderation features including spam filtering, blocked words system, and message control tools to ensure safe and relevant feedback handling
- Designed and deployed a full-stack application with a clean UI and seamless user experience, supporting scalable anonymous message collection and management

Anchor Testing Suite

Github

- Developed a CLI-first testing workflow for Anchor/Solana programs featuring PDA discovery from generated IDLs, automated mutation-style transaction checks on LiteSVM, and structured JSON report output for local runs and CI artifact storage
- Implemented a **pda-scanner** CLI binary enabling IDL-driven PDA inspection and project-agnostic mutation test generation, demonstrating proficiency in Rust and low-level system tooling
- Integrated GitHub Actions CI pipeline automating the full build-scan-test cycle, uploading **report.json** artifacts for structured debugging and evidence tracking across projects

SyncMesh

Github | Demo

- Architected a highly concurrent, real-time collaboration engine using **Fastify WebSockets**, resolving distributed document state conflicts efficiently via **Yjs CRDTs**.
- Scaled the WebSocket infrastructure horizontally by implementing a **Redis Pub/Sub** backplane, enabling seamless and instant cross-node client synchronization.
- Engineered a lazy-persistence debounce pipeline to batch high-frequency state updates directly into **MongoDB**, completely eliminating database I/O bottlenecks.

Technical Skills

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

Frameworks/Databases: React.js, Next.js, Node.js, Express.js, PostgreSQL, MongoDB, MySQL, Firebase

Styling/UI: Tailwind CSS, Bootstrap, Shadcn, Acertinity UI

Tools/Platforms: Git, GitHub, Docker, CI/CD Actions, VS Code, REST APIs, Vercel, Render, Supabase

Achievements/Certifications

Winner – HackQuest Ninja Break Content Festival

Selected among top technical content creators for educational engineering articles and technical deep-dives

Full Stack Blockchain Bootcamp (Code Eater)

Completed 300+ hour curriculum — Systems architecture, Backend infrastructure, full-stack DApp development