Ashutosh swain

Github | LinkedIn | Portfolio | email | +9777243905

SUMMARY

Computer Science student with a deep curiosity for technology, demonstrated through a hands-on approach to learning by building and deconstructing code. I am passionate about exploring new tech stacks, particularly in backend systems, and am eager to apply my problem-solving skills to challenging real-world projects click here.

PROJECTS

skyforge   Link to Demo

Architected and engineered a full-stack database schema design platform (codename: Skyforge) that transforms visual ER diagrams into production-ready code in multiple languages. The platform utilizes a performant Go backend for API stability and a Next.js frontend for a modern, responsive user experience.

maxim   Link to repository

Developed Maxim, a high-performance Go-based TUI client for PostgreSQL, featuring an intelligent SQL editor with schema-aware autocomplete, secure password handling, and integrated Docker container management for one-click local database deployment and teardown..

zora   Link to repository

Built a cross-platform command-line application using Golang and the Cobra library. Features include recursive directory parsing, GitHub API integration, and automated cross-compilation pipelines via GoReleaser..

zora   Link to demo

PodStore is a Riverside style video platform where I designed the backend architecture using Supabase for data storage LiveKit for real time SFU streaming Upstash Redis for queues and S3 compatible storage with Backblaze B2 and Cloudflare R2 along with client side recording via the MediaRecorder API.

EDUCATION

2024 - 2028   B-tech (Information technology) at **Vellore institute of technology**

PUBLICATIONS

Authored a detailed technical blog post on the system design and architecture of Amazon's DynamoDB, demonstrating strong knowledge of distributed systems Link

Wrote a technical blog breaking down the BitTorrent protocol based on building a BitTorrent client in Go highlighting peer to peer networking piece exchange and protocol level design concepts Link

Wrote a concise technical blog explaining Google Borg and how it manages large scale cluster scheduling resource allocation and fault tolerance highlighting the core ideas that inspired modern systems like Kubernetes Link

SKILLS

Languages	Javascript , typescript , golang , rust
Frameworks and librareis	Next js , react js , tailwind css
Backend & Cloud Technologies	express js , node js , webRtc , Redis , Mult-cloud storage