Swayam Duhan

Remote / India

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$(WHOAMI)

DEVELOPER. DESIGNER. PROBLEM SOLVER.
Full-stack engineer who loves to craft digital experiences. Proficient with the cloud & the web with the proven ability to ideate from scratch and turn them into reality.

EDUCATION

Vellore Institute of Technology (VIT), Vellore, TN, India — CGPA: 9.19
Bachelor of Engineering, Computer Science & Engineering (Pursuing) — *Aug. 2023 - June. 2027*

PROJECTS

LinkUp - WebRTC Calling | *React, Websockets, WebRTC, EC2* — Github | Live
- Developed a web-app implementing WebRTC that connects two random users on video
- Reduced server load by *50%* and latency by *20%* by implementing RTC Data Channels for chatting instead of Websockets
- Deployed and configured on an EC2 machine with an automated SSL certificate renewal setup using Let's Encrypt
- Used CoTurn to allow users to connect if in a NAT/Firewall blocked situation

BlinkPay | *Next.js, Turborepo (Microservices), Go, PostgreSQL, gRPC* — Github | Live
- Architected a secure, industrial-grade payment application to showcase banking/wallet functionality, enabling 10000+ simulated transactions per minute.
- Experimental UI design and an intuitive UX for seamless user experience
- Secure architecture to handle errors and an exponential-backoff retry mechanism for failing payments
- Used Redis for an in-memory queue with Go workers to perform payments
- Implemented Next-Auth for JWT based authentication and a fluent experience

Raging Sea Shader | *Three.js (WebGL), GLSL Shaders* — Github | Live
- Developed a shader art to portray a raging sea
- Used a vertex shader to manipulate vertices of a subdivided plane using math
- Iterated the perlin noise function on vertices to give the illusion of turbulence in waves
- Implemented a modular GUI panel with adjustable sliders to tweak sea's intensity and color spectrum reducing artist workload by *30%*

SkyTrack | *Next.js, Puppeteer, PostgreSQL, Prisma, Docker, Github Actions* — Github | Live
- Developed a web application to notify users about threshold based price drops on flights free-of-cost
- Using Puppeteer with a mini headless chromium browser to scrape Google Flights for data
- Implemented a routine triggered by Github Cron Jobs to check for outdated data in database to clean and check for price drops

TECHNICAL SKILLS

Languages: Go, TypeScript, GLSL, JavaScript, SQL, HTML, CSS, C/C++
Frameworks & Libraries: Next.js, React, Tailwind CSS, Three.js (WebGL), Echo, Hono.js, Express.js, Gorilla WS (Go), GSAP, Motion, Prisma ORM, Jotai, Zustand, Cannon.js (Physics)
DevOps & Tools: Git, Github Actions, Jenkins CI/CD, Docker, Turborepo, GCP, AWS, Azure, Figma
Databases: PostgreSQL, MongoDB
Infrastructure: Redis, Kafka, Nginx, Kubernetes, REST APIs, gRPC, Websockets, WebRTC, Terraform
Others: OAuth, JWT, CMS, Cookies

CERTIFICATIONS

IBM Devops Fundamentals — View Credentials
IBM Agile & Design Thinking — View Credentials