

HARSH SHARMA

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🐙 <https://github.com/GeneCodeSavvy>

EXPERIENCE

Google Summer of Code 2025 participant with NRNB

June 2025 - Nov 2025

- Contributed to the sbol-utilities library of SynBioDex by developing a bidirectional Python converter between SBOL2 and SBOL3.
- Implemented and tested conversion functionalities to bridge the gap between the older SBOL2 format and the current SBOL3 standard.
- Implemented features, for a smoother development experience
- Fixed CI/CD

Class Representative, Sinhgad College of Engineering

2022 - 2024

- Managed the student committee, coordinated events, obtained permissions, and delegated tasks for smooth execution.
- Organized major cultural activities including *Karandak*, facilitating participation from multiple colleges.

PROJECTS

Verceless, a Cloud Deployment Platform

- **Tech Stack:** React, Node.js, Docker, AWS (ECS, ECR, S3, EC2), Oracle Cloud, Caddy
- **Live Link:** <https://vercel.harsh-dev.xyz/>
- **Github :** <https://github.com/GeneCodeSavvy/verceless>
- Engineered a scalable CI/CD pipeline that automatically deploys React applications from a GitHub URL.
- The pipeline uses a Node.js backend (on Oracle Cloud) to trigger a Dockerized build process on AWS ECS, with images pulled from ECR.
- Final static assets are hosted on AWS S3, with a Redis instance on EC2 streaming live build logs to the user.
- Caddy for reverse proxy & tls automation for dynamic links

Tradeless, a Contract For Difference Platform

- **Tech Stack:** TypeScript, Node.js, Express.js, Redis, WebSocket, Turborepo
- **Github:** <https://github.com/GeneCodeSavvy/tradeless>
- Built a real-time CFD trading platform simulating cryptocurrency trading using live market data.
- Implemented microservices architecture with a trading engine processing orders through Redis Streams and Pub/Sub for real-time price updates.
- Developed market data poller connecting to Backpack Exchange WebSocket API, streaming BTC, ETH, SOL prices every 100ms to maintain accurate CFD pricing.
- Created internal ledger system managing virtual USD balances with slippage protection and risk management for simulated trading positions.
- WebSocket server enables real-time price feeds to frontend with subscription-based asset filtering and JWT-based user authentication.

TECHNICAL STRENGTHS

Computer Languages

Python, R, JavaScript, Typescript

Technologies

React, Next.js, MongoDB, Node, Express, AWS S3, AWS ECR, AWS ECS, Caddy

Tools

Vim

EDUCATION

Sinhgad College of Engineering, Pune

2020-2024

Bachelor of Technology in Biotechnology

Gundecha Educational Academy, Mumbai

2018 - 2020

HSC