# HARSH SHARMA

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github.com/GeneCodeSavvy

#### **SUMMARY**

A software developer with experience in full-stack web development and open-source software contribution. Proficient in Python, JavaScript, Tyepscript and AWS & Oracle cloud services, with a passion for building scalable applications and solving complex problems. Eager to contribute to CHADLABS.

## **EXPERIENCE**

#### Google Summer of Code Contributor

May 2025 - Present

- · 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

## **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, AWS S3, AWS ECR, AWS ECS, Caddy

**Tools** Vim

## **EDUCATION**

# Sinhgad College of Engineering, Pune

Bachelor of Technology in Biotechnology

2020-2024

# Gundecha Educational Academy, Mumbai

**HSC**