

HARSH GUPTA

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Education

Vellore Institute of Technology, Vellore

B.Tech in Computer Science and Engineering

Jul 2020 – May 2024

9.09, CGPA

Experience

Luganodes ↗ [Software Development Engineer]

Sep 2023 – Present

- Led the development of a batch contract ↗ which implements a unique transaction flow for validator operations like consolidation, partial exit, etc. using EIP-7702, for the Pectra upgrade on Ethereum.
- Built an automated boost optimization tool for Berachain validators, propelling Luganodes into the top 10 leaderboard despite 95% less stake than top validators.
- Led migration from Docker on individual VMs to Kubernetes, setting up the cluster with ArgoCD, Infisical, monitoring stack, and MongoDB replica sets.
- Actively contributed to the Ethereum Staking API, which secured **\$1.3B+** in institutional client stake.
- Built a custom Ethereum deposit tracker with 0% external dependency, eliminating **\$399/month** in costs.
- Automated validator onboarding to Web3Signer and Lighthouse, enabling instant post-deposit onboarding with zero manual intervention.
- Developed high-performance indexers for Ethereum, Polygon, Solana, Polkadot, Avail, Berachain ↗, MultiversX, and Kava, ensuring data accuracy and reliability.
- Engineered a sophisticated reporting dashboard, integrating 20+ blockchains, providing accurate financial reports for clients with over **\$3B+** staked with us.
- Set up monitoring dashboards and analytics using Grafana, Mimir, Alloy, and Loki, with real-time logging and alerts for multiple blockchains.
- Developed Staking APIs for Solana and Polygon

Dyte (YC W21) ↗ [Software Engineering Intern]

May 2023 – Aug 2023

- Conducted load testing on socket services, achieving 100K simultaneous socket connections to analyze its reliability and performance.
- Wrote unit tests for the sockets layer in Go, achieving 90% test coverage, and automated coverage report generation via a CI/CD pipeline.
- Developed a health probe to monitor socket service status, with real-time status reports sent directly to Slack.

Projects

Email Extractor

- Automated IEEE VIT's sponsorship workflow using Selenium WebDriver and Python3, achieving a 300% increase in sponsorship revenue compared to the previous year
- Managed a high-volume email system, integrating AWS SES, SendGrid, and Mailgun to efficiently send over 10,000 emails per event for organization events.

RBAC Authentication Service ↗

- Developed a containerized task management system with dynamic role-based and group-based access control.
- Enabled seamless bulk CSV uploads, preserving user-task relationships and enhancing data management efficiency.

FFCS ↗

- Developed a TypeScript backend for a University Credit and Timetable Management System, enhancing efficiency and preventing scheduling conflicts.
- Utilized PostgreSQL for reliable data management, adhering to OpenAPI standards for API integration.

Leadership / Extracurricular

Technical Head, IEEE-VIT

Dec 2020 – Dec 2023

- Responsible for Technical growth of 75+ members in the organization inculcating and promoting the Open Source Software culture and good development practices.
- Developed projects and software for events used by 1500+ participants in 100+ countries.
- Speaker at Techloop – Introduction to MERN ↗, guiding 400+ students in Web Development.

Achievements

- Awarded the Merit Scholarship ↗ for Outstanding Performance in academics by VIT Vellore, twice.

Skills and Interests

Programming Languages: Golang, JavaScript, TypeScript, Python3, Java, C, C++

Miscellaneous: Linux, Git, PostgreSQL, MongoDB, MySQL, AWS, Azure, GCP, Docker, Kubernetes