

Ayush Satyam

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EXPERIENCE

Red hat

Software Engineer - 2

Remote

Feb 2025 - Present

- **Independently delivered** the Buildpacks build strategy for OpenShift Builds, **driving 30% growth in customer onboarding** and accelerating native image adoption.
- **Led core design** initiatives for multi-architecture builds and architected the OLM v1 migration, alongside **upstream OSS** features like shallow cloning, feature gating, and test suite labeling.
- **Mentored and onboarded** 3 new team members, strengthening team velocity and cross-project collaboration.

Software Engineer - 1

Jul 2023 - Feb 2025

- **Delivered** the OpenShift Builds GA release, **enabling 50+ enterprise customers** with seamless in-cluster image building.
- **Automated** CVE detection, triage, and patching workflows, reducing security rollout times **from 1 week to near zero**.
- **Mentored 10 university outreach students**, strengthening platform security and fostering **open-source contributions**.

Software Engineer intern

Nov 2022 - May 2023

- **Slashed SPA deployment times by 10×** via bundle splitting and caching, boosting productivity and **reducing infra costs**.
- **Cut gateway response times from 3s to 200ms** by migrating One-platform services to the Backstage internal developer portal.

Google Summer of Code (GSoC), Python Software Foundation

Remote

Student Developer

May 2022 - Oct 2022



- **Migrated EOS Icons to Next.js and TypeScript**, boosting SEO, performance, and scalability.
- **Revamped UI/UX** with core features like category navigation, side drawers, and deep-link sharing.
- **Revamped search** experience by integrating Algolia for faster, more accurate search across **5000+ icons**.
- Set up Jest, React Testing Library, and Cypress with CI/CD, achieving **90%+ test coverage**.

Pravegak technologies




Remote

SDE Intern

May 2021 - Jul 2021

- Migrated Backend of *Skribo* (**100k+ downloads** ) to Node.js and implemented sockets to manage real-time interactions
- Built 1-1 and group audio chat, messaging, and admin dashboard for *Plutus* (**100k+ downloads** ) social app using React.

OPEN SOURCE CONTRIBUTIONS

- **DiceDB** : Core contributor to a high-performance database, spearheading critical backend enhancements:
 - Engineered robust persistence using **Write-Ahead Logging (WAL)** and architected the sophisticated **checkpointing** and **multi-cluster replication** logic, ensuring data integrity and scalability.
 - Developed an optimized **thick client**, slashing SDK response times by **87.5%** (from 40ns to 5ns) for significantly faster data access.
 - Boosted core command performance by leading the migration and integration to a custom **'Ironhawk' execution engine**.
- **Shipwright (Kubernetes-native builds)**: 
 - Implemented advanced Git cloning strategies (e.g., **shallow, history-based**) for faster builds and reduced resource consumption.
 - Enhanced Kubernetes operator with **feature gating** and critical **OLM v1 compliance** for robust lifecycle management.
- **Google Summer of Code (PSF)**:  Revamped UI/UX solutions by leading a full-scale migration, delivering enhanced user experiences.

PROJECTS

OPUS

Github 

- Created an esoteric programming language where musical compositions are executable code.
- Built a Go-based interpreter for real-time MIDI audio detection and compilation.
- Ensured each program is both compilable and a playable musical piece.

Gitpot

Github 

- Built Gitpot, a lightweight toy version of Git version control in Go using Cobra CLI.
- Implemented and tested core Git commands (add, commit, status, branch, checkout) with similar functionality.
- Designed a streamlined CLI tool for efficient version control operations.

TECHNICAL SKILLS

- **Programming:** C/C++, Golang, Javascript, Python, SQL, \LaTeX , Linux/Unix.
- **Cloud:** AWS, RHEL, Openshift, Kubernetes, Tekton, ArgoCD, Kafka, Jenkins, MySQL, Postgres, Redis

EDUCATION

Shri Mata Vaishno Devi University

B.Tech in Computer Science and Engineering

GPA: 8.59 / 10.0

May 2019 - May 2023