Sid Verma

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Thanks for visiting me. I'm a software developer, amateur artist, and a maker.

Skills

Full-stack development

Primary backend languages: Golang, Python and Javascript.

Most used frameworks: **Django**, **Flask** and **Express.js**. Primary frontend frameworks these days: **React**, **Vue.js**

Big fan of simple, structured HTML/CSS with vanilla JS. Example: this webpage.

I use many kinds of production environments. I have set up and extensively worked with:

- Bare metal deployments using SSH and **Ansible**, on-prem and off-site.
- Containerized deployments on bare metal + VPSs, managed using **Docker**, **Kubernetes** and **Terraform**.
- Hosted kubernetes and other services on AWS, GCP, DigitalOcean, and OpenStack.

Experience

I've spent the last decade working as a full-stack generalist and mentor, often working across domains in projects. This often includes **conceptualization**, **rapid prototyping**, **functional UX**, **workflow automation**, **development**, **code review**, **testing**, **infrastructure** and **deployment** setups. I also enjoy writing technical documentation + explainers.

Opencraft (2020-21, 2023-24)

Worked extensively with <u>OpenEdx</u> at this **fully remote** and **distributed** consultancy, focusing on core platform development, deployment, client management, and process improvement.

- **Collaboration**: Worked with open-source maintainers and clients to develop effective, generic solutions.
- **Recruitment**: Led screening, interviewing, and onboarding processes.
- **Process Improvement**: Identified and resolved issues in communication, project planning, and team productivity. Developed frameworks for better planning.
- **Sprint planning**: Enhanced team productivity and communication by developing bespoke tools for planning and monitoring.
- **Software development**: Architected and developed the core platform, including plugins and orchestration. Most of it in Python, Django, React and Golang.
- **Cloud-agnostic Infrastructure management**: Built tools and platforms to manage client infrastructure (cloud/bare-metal) using Ansible, Terraform, Kubernetes, OpenStack, AWS, GCP, and DO.

This list is quite reductive, and mostly reflects the primary technologies I've been using in recent past, for this specific role. I also work with **Kotlin**, **Swift**, **Rust**, and **C++** for mobile apps, microcontrollers, and other projects.

Additionally, I use **Audacity**, **Blender**, **OpenSCAD**, **Autodesk Fusion**, and the **Adobe Suite** for A/V production, 3D modeling and printing.

OpenEdx is an open-source education platform that enables anyone to spin up their own edX like instances.

It's a large platform with tons of capabilities. We provided the platform as a managed service, developed custom solutions for clients small and large, and worked closely with the open source community and maintainers to add new capabilities to the platform.

<u>Here</u> is an example of some of my open source work.

Shortform (2021-22), Solar Accounts (2020-21)

- **Developed Critical APIs**: Created robust APIs using Python and Node.js.
- Built Vue.js Apps: Transformed design mockups into functional Vue.js applications.
- Infrastructure: Improved the availability, cost and resilience of the AWS infrastructure.
- **Enhanced Security**: Integrated end-to-end encryption to secure accounting software.

McLaren College (2020-21)

- Course development: Developed courses on Programming, Web Development, Dart, and JavaScript.
- **Classroom**: Instructed beginner software developers in these subjects.
- **Coding**: Built web-based tools for managing multiple concurrent classrooms.
- **Workflow optimization**: Developed efficient backend workflows for scoring, grading, and feedback.

Tower Research Capital (2017-19)

My team built tools to manage the highly complex infrastructure. I worked on, among other things:

- **Monitoring System**: Developed an accessible monitoring and alerting system with robust data security for all teams and systems.
- Orchestration System: Developed an internal platform to easily provision different kind of systems.
- Infrastructure Visualization: Led development of tools for detailed physical and logical infrastructure visualization.
- **Automation Framework**: Redesigned the central automation framework to be generic and extensible, automating software operations and organizational processes.
- **Process Automation**: Developed new services and automations to speed up organizational processes, eliminating redundant authorizations and reducing wait times.
- **Performance Optimization**: Optimized core platform services and APIs for significant performance gains.
- **API, UI, & Infra Development**: Created APIs and UIs for various other internal organizational products. Core tech was Python, Go, Java, C++, Vue.js, SQL, Neo4J, Kafka, Elastic, Docker

Hello English (2015-17)

- Social news feed: Designed and built a highly cost-efficient, fast social news-feed feature.
- **Chatbot platform**: Developed a chatbot platform and a user-friendly templating language for writing interactive stories, to teach foreign languages.
- **Speech recognition**: Built a multi-platform, on-device speech recognition and grading system for servers, web-browsers, and mobile.
 - **CI/CD**: Introduced automation pipelines for testing, deployment, and rollbacks across all apps and services.
- **Electron app + PWA**: Created a framework to build an offline electron app, and a PWA from an existing dynamic website. This allowed the web-app to be packaged for running locally.
 - Wrote data aggregation services, browser extensions, IVR platforms, and several Android modules.

My team developed software to manage and secure the global trading infrastructure at this **High-Frequency Trading** firm.

We built tools for provisioning, monitoring, and debugging different kinds of systems, applications, and networks – ensuring seamless collaboration and customizable access across trading and operations teams worldwide, often with very complex Access Control.

Tickertape (2015-16)

- Developed the main product, <u>Stock Screener</u> from scratch using **Node.js** and **AngularJS**; now serving **200K+** users.
- Designed intuitive **UI** and engineered **backend**, **frontend**, and **data pipelines**.
- Created **internal libraries** for seamless REST and SOAP API integration from external vendors.

Education

Jaypee University of Engineering and Technology (2025-16)

B.Tech, Computer Science and Engineering 2012 - 2016

I was the **sole developer** of the initial version of this product. I designed a functional UI in half a day, followed by months of coding.

Like the Ship of Theseus, most code I wrote has likely been cycled out. And yet, the UI still survives, almost exactly the same.

I am simultaneously annoyed and proud of this, given that I am *not* a professional UX designer.