Santosh Kumar

Fullstack Developer | Backend | DevOps

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CAREER OBJECTIVE

To design and engineer elegant, efficient, and maintainable solutions that help organizations to innovate and discover new frontiers in technology and business. To grow as an engineer and full-stack developer, pursue newer technologies, and master them.

SKILLS & TOOLS

- Polyglot programmer with work experience in **Python**, **Go,** and **JavaScript**.
- Good knowledge of databases such as **MongoDB** and **PostgreSQL**.
- Hands-on experience using frameworks such as **Flask**, **FastAPI**, **Vue,** and **Vuex**.
- Knowledge of auth mechanisms such as **JWT**, cookies, **OAuth2**.
- Hands-on experience with AWS Serverless services.
- Sound knowledge of networking protocols/specs such as **HTTP**, **WebSocket** and **AMQP**.
- Use **Terraform** and **Ansible** to manage the **AWS EC2** fleet running **Linux**.
- Awareness of **DNS**, **nginx** while managing my personal website.
- Intermediate knowledge of **OOPs** concepts and **design patterns**.
- Experience with **TDD** and **CI/CD** using **Jenkins** and **Docker**.

WORK EXPERIENCE

NuNet, *Full Stack Developer*

April, 2022-Present

- Working on the Device Management Service. DMS is the core component of NuNet responsible for onboarding new devices to the network, P2P communication, starting different kinds of jobs such as GPU on docker, firecracker, and handling telemetry.
- Use firecracker to launch and manage lightweight VM to run the workload. Configure networking on virtual machines using tunnel devices.
- Package the service as a systemd unit and generate and publish deb packages for Linux-based installation using GitLab CI.
- Isolate and secure host system from VM and vice versa.
- Used WebSocket for realtime communication between DMS and CLI/web client, which invoke deployment requests.
- Tech stack: Go, Python, GitLab CI, Firecracker, gRPC, Docker SDK, WebSocket, libp2p.

Company 3 (formerly Method Studios), *Full Stack Developer*

Feb, 2021-April, 2022

Resplan

- Contributing to the development and maintenance of a distributed, internationalized, large-scale SPA Resource Planner app built with **Flask**, **MongoDB** in backend, and **Vue**, Vuex and Vuetify in frontend.
- Took initiative to incorporate **Jenkins** + **Docker Registry** in our CD workflow for both frontend & backend service which will help reduce overall deployment time.

- Advocating clean code and TDD to reduce technical debt.
- Tech stack: Python, Flask, MongoDB, JavaScript, Vue, Vuex, Vuetify, Docker, Jenkins

Method Studios, *Pipeline Developer*

May, 2019-Feb, 2021

- **Increased observability** by proposing and developing a license tracker dashboard in **React** to pull data from **Elasticsearch** and displayed total/used license count from 2 different business units.
- Maintained **2+** distinct **web services** responsible for asset management by coordinating with a team from 4+ geographic locations, which used to serve 200+ artists.
- Developed a voting service in **Flask** and **SQLAlchemy** to vote for their favorite t-shirts.
- Developed report generation tool for client deliveries using an open-source library **openpyxl**.
- Managed about 200+ render nodes to look for and fix any bottlenecks in the rendering pipeline.

Xentrix Studios, *Technical Artist*

May, 2018-May, 2019

- Built from scratch a multithreaded utility XenCopy to transfer data back and forth in 3 different facilities, maintaining a generic structure for all the project and **user privileges** in mind with help of appropriate **design patterns**.
- Built from scratch a clipboard manager XenClip, to **extend the system clipboard** to aid the pipeline team's workflow. Stored history (per user) in **SQLite**.
- Built from scratch an asset and shot packaging system, replacing former tools. Used an abstract factory pattern to deal with project-specific needs.
- Maintained existing libraries for asset management frameworks to change production needs which included heavy interaction with MySQL**,** without using ORM.
- Wrote 2+ tools in **Qt** which helped me understand **object-oriented programming** patterns.
- **Introduced** team to Git workflow. Got Gogs server set up.

EDUCATION

Picasso Animation College, New Delhi - *Diploma*

April, 2014-May, 2017
Diploma in Multimedia & Animation. Specialization in Python and VFX Compositing. Learned to work with APIs of DCC packages.

teachyourselfcs.com

Certificates:

- Docker and Kubernetes: The Complete Guide
- freeCodeCamp Responsive Web Design
- The Bits and Bytes of Computer Networking
- Operating Systems and You: Becoming a Power User
- Developing on AWS

ONLINE PROFILES:

Github : github.com/santosh
Codepen : codepen.io/sntshk
StackOverflow : stackoverflow.com/u/939986
Leetcode : leetcode.com/sntshk