

Saurav Kumar

Experienced Software Developer adept in bringing forth expertise in the design, development, testing, and maintenance of software systems. Able to effectively self-manage during independent projects, as well as collaborate as part of a productive team.

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WORK EXPERIENCE

Senior Software Engineer Browserstack

04/2022 - Present

Mumbai

Achievements/Tasks

- Orchestrated the transition of a core service from a **monolithic** structure to a separate **microservice** with **no downtime**. This led to a **50%** reduction in API latency of **400K req/hr** for allocation, deallocation, and cleanup of **20k terminals**.
- Created a **Kubernetes** CI/CD infrastructure for microservices on **EKS** using **Ansible**, **FluxCD**, and **Jenkins**, starting from the ground up.
- Employed **AWS Data Migration Service** to efficiently migrate a **PostgreSQL** database of approximately **190GB** to **MySQL** in a live production environment, achieving minimal downtime of just 1 minute. Additionally, optimized DMS performance to manage DB load during the process.
- Played a key role in developing a pipeline for storing customer test data in a central data platform (**1TB**) using **REST API** and **Kafka** ingestion. Enhanced database query performance to manage a load of **2.5K queries per second (QPS)**.

Software Engineer Browserstack

07/2020 - 03/2022

Mumbai

Achievements/Tasks

- Member of the **SpeedLab** team, a tool designed to provide performance insights for websites across mobile and desktop browsers. Skill involved **Ruby**, **Nodejs**, **Bash** and **Swift**.
- Reduced mobile device session error rates from **40% to 3%** by addressing various issues related to **ABD**, device stability, and optimizing our use of open-source tools like **SiteSpeed** and Google's **Lighthouse**.
- Successfully single-handedly integrated **LaunchDarkly** (a feature flag system) into our system, widely adopted by developers due to its robust design, including a fallback mechanism and **cost-effectiveness, avoiding single points of failure**. Currently our LaunchDarkly architecture is resolving flags at over **7K req/sec**.

EDUCATION

Army Institute of Technology, Pune Bachelor of Engineering, Computer Science

07/2016 - 06/2020

8.9 CGPA

SKILLS

MySQL

Git

Docker

NodeJS

Bash

AWS(EC2, EKS, S3, Route53, AuroraDB, DMS)

Kubernetes

Redis

Ruby on Rails

Nginx

Ansible

Jenkins

Core Java

Kafka

PERSONAL PROJECTS

GoDrive (06/2020 - 07/2020)

- A command line tool to upload files to user's Google drive account using google OAuth2.0 for authenticating users and getting auth code.
- Standalone server hosted on Heroku to get access and refresh token using the auth code of the user.
- Build using **Java**, **maven** and **Javascript**.
- Github link: <https://github.com/svkrclg/goDrive>.

MemeShop (05/2021 - 06/2021)

- Android app to search, edit, and download memes. It was built on Android Studio and published in the Play Store.
- Python HTTP server was hosted on AWS EC2, meme template image was stored in S3 and meme details stored in dynamoDB.
- Github link : <https://github.com/svkrclg/memers>.
- Play store link: <https://play.google.com/store/apps/details?id=com.rival.canvasmeme>.

AlgoView: Pathfinding and sorting visualizer (08/2020 - 09/2020)

- App to Visualize the basic algorithms of pathfinding (Breadth-First Search, Depth-First Search, A-star search, Dijkstra's) and sorting (Merge Sort, Heap Sort, Bubble Sort, Selection Sort, Quick Sort Insertion Sort) with animation.
- Control the animation with seek-bar, increase/decrease the speed of the animation.
- Github link: <https://github.com/svkrclg/AlgoView>.
- Playstore link: <https://play.google.com/store/apps/details?id=com.rival.algoview>.

MEDIUM BLOGS

Building HTTP server (from scratch)

<https://medium.com/@svkrclg/building-http-server-from-scratch-e7f47dd93e6c>

gRPC Load balancing using Envoy

<https://medium.com/@svkrclg/grpc-load-balancing-using-envoy-e8972214da2c>

LANGUAGES

English

Full Professional Proficiency

Hindi

Full Professional Proficiency