

Gagan Sapkota

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EXPERIENCE

Software Engineer, Co-Creator

Sep 2022 – Jan 2023

Skopos & <https://skopos-api-monitoring.github.io/>

Skopos is an open-source API monitoring tool for testing multi-step API workflows in sequence and independent workflows in parallel, built using Node.js, React, Xstate, and AWS services (S3, ECS, EC2, Event Bridge, Lambda, and SNS)

- Designed the data model normalized to 3NF and implemented the schema with Prisma for efficient data migrations (Typescript, Prisma, PostgreSQL)
- Developed and unit-tested the core logic for testing multi-step API workflows and implemented the state machine for validating assertions (Node.js, Express, Xstate)
- Containerized application to execute tests in parallel by horizontally scaling the application using AWS load balancer (Docker, ECS, EC2)
- Automated cloud deployment to create and configure 11 constructs on AWS using Cloud Development Kit infrastructure as code (VPC, ECS, EC2, Load Balancer, RDS, EventBridge, SNS, Lambda)
- Engineered the scheduling functionality using Event Bridge to integrate with and decouple from the backend logic (SDK, EventBridge, Lambda)
- Contributed to the creation of UI by crafting GraphQL queries and custom react hooks (GraphQL, React)
- Authored and presented a comprehensive case study & on the design decisions encountered while creating Skopos and the problems it solves

Software Engineer, Mastery Based Learner

Mar 2021 – Dec 2022

Completed a mastery based online program focused on the fundamentals of software engineering while building projects on the side

- Designed and developed **WireSnoop**, a RequestBin clone for receiving and debugging webhooks. Utilized Nginx, Node.js, PostgreSQL, MongoDB and React
- Built **Ergo**, a task manager built with scalability in mind. Built using Ruby, Sinatra, PostgreSQL, and JQuery

Philosophy Instructor

Jan 2017 – May 2021

University of Colorado, Boulder

- Advocated for a novel Global philosophy to diversify the Philosophy curriculum, got approved, and finally designed and implemented the course
- Successfully taught courses on formal reasoning and writing, improving students' abilities to reason about and articulate abstract problems
- Collaborated with colleagues to improve teaching by conducting peer review of teaching session and exchanging feedback on teaching strategies

SKILLS

Backend

Node.js, TypeScript, Ruby, Python, GO, PostgreSQL, MongoDB, Apollo, GraphQL, Express, Xstate, Mongoose

Frontend

JavaScript, React/Redux, HTML/CSS, GraphQL, JQuery

Tooling

Git/Github, Docker, Heroku, DigitalOcean, AWS Services (ECS, EC2, Event Bridge, SNS)

EDUCATION

Software Engineering, *Launch School*

Mar 2021 – Sep 2022

PhD in Philosophy, *University of Colorado, Boulder*

Sep 2016 – May 2022

MA in Philosophy, *Georgia State University*

Sep 2013 – May 2016

BS in Maths and Philosophy, *Saint Peter's University*

Sep 2008 – May 2012