Gagan Sapkota

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🪪 PROFILE

I am a software engineer with a PhD in Philosophy. A fast-learner with several years of experience in Ruby and JavaScript ecosystems, I am well versed in Node.js, PostgreSQL, Prisma, GraphQL, Docker, and AWS. Recently, I designed Skopos: an API monitoring tool for testing multi-step API workflows.

🌱 TECHNICAL PROJECTS

Capstone Project - Skopos 🔗 *https://skopos-api-monitoring.github.io/*   Sep 2022 - Dec 2022
Co-Creator, Software Engineer

Architected the design and deployment of Skopos, an open-source API monitoring tool for testing multi-step API workflows in sequence and independent workflows in parallel, using AWS services including 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, 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.

Additional Open Source Projects   Mar 2021 – Dec 2022
- **WireSnoop**: A RequestBin clone designed for receiving and debugging webhooks. Built with Nginx, Node.js, PostgreSQL, MongoDB, React.
- **Todo App**: A CRUD style todo-tracker. Built for scalability using a database adapter pattern. Built with Ruby, Sinatra, and PostgreSQL.

🧠 SKILLS

Backend	Frontend	Tooling
Node.js, TypeScript, Ruby, Python, PostgreSQL, MongoDB, Prisma, GraphQL	JavaScript, React/Redux, HTML/CSS, GraphQL, JQuery	Git/Github, Docker, Heroku, DigitalOcean, AWS Services (ECS, EC2, Event Bridge, SNS)

💼 PROFESSIONAL EXPERIENCE

Philosophy Instructor   Jan 2017 – May 2021
University of Colorado, Boulder
- Led efforts to diversify Philosophy curriculum by designing a novel Global Philosophy course for undergraduates.
- Constructed and taught 9 courses lasting 4 months each, with around 33 students in each course.

🎓 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