Gagan Sapkota



TECHNICAL PROJECTS

Co-Creater, Software Engineer

Sep 2022 – Dec 2022

Skopos & (https://skopos-api-monitoring.github.io/): An open-source API monitoring tool for testing multi-step API workflows in sequence and independent workflows in parallel.

Architected the design and deployment of a fault-tolerant API monitoring tool, 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.

Software Engineer Mar 2021 - Sep 2022

Developed various open-source web-applications with technologies such as Node, Ruby, PostgreSQL, Javascript, React.

- WireSnoop: A Requestbin clone designed t for receiving and debugging webhooks. Built with Nginx, NodeJS, Postgres, MongoDB, React.
- Todo App: A CRUD style todo-tracker. Built with Ruby, Sinatra, and PostgreSQL. Built for scalability using a database adapter pattern.

⟨♠⟩ SKILLS

Backend

Node.js, Typescript, Ruby, Python, PostgreSQL, MongoDb, Prisma, GraphQL, RESTful APIs

Frontend

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

Tooling

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

➡ PROFESSIONAL EXPERIENCE

Philosophy Instructor

Jan 2017 - May 2021

University of Colorado, Boulder

- Designed and taught multiple courses in philosophy.

EDUCATION

Software Engineering, Launch School

Mar 2021 - Sep 2022

Ph.D 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