# Gagan Sapkota

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## ☘ TECHNICAL PROJECTS

**Capstone Project - <u>Skopos</u>**  🔗 *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 <u>case study</u> 🔗 on the design decisions encountered while creating Skopos and the problems it solves.

**Launch School**                                                                                           Mar 2021 – Dec 2022
Attended a mastery-based online program focused on software engineering fundamentals and developed various open-source web-applications with technologies such as Node.js, Ruby, PostgreSQL, Javascript, React.

- 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
- Designed and taught multiple courses in philosophy.

## 🎓 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