Mykel Murphy

Software Engineer

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PROFILE

I'm a full-stack developer with a solid foundation in TypeScript, Ruby, PostgreSQL, and React. I thrive in environments that challenge me — whether it's tackling complex problems or diving into new, unfamiliar technologies. Known for my clear communication and proactive approach, I contribute meaningfully to fast-paced, collaborative teams.

EXPERIENCE

Co-Creator & Software Engineer, *Frame* ⌘   2024 – present

Frame is an visual search platform specifically designed for developers. It abstracts the entire embedding and image search process and deploys infrastructure directly to a user's AWS account.

- **Architected scalable, serverless infrastructure** using AWS Lambda, S3, API Gateway, and SQS with a cost-efficient scale-to-zero design.
- **Developed a fully typesafe API** using Hono and Zod for schema validation, automatically generating OpenAPI documentation.
- I**mplemented robust image validation and preprocessing pipelines** for downstream multimodal embedding models using the Sharp image processing library.
- **Engineered asynchronous request handling with SQS queues** and retry logic, decoupling user requests from embedding workflows to **minimize latency**.
- **Built an SDK to streamline developer integration** and simplify interaction with the Frame API.
- **Automated infrastructure deployments** with CLI tooling powered by the AWS CDK that reduce a 30+ step workflow to a few commands.
- **Authored a comprehensive case study** outlining the problem space, technical trade-offs, and architectural decisions that led to the development of Frame.
- **Orchestrated remote collaboration** with an international team of four engineers across multiple time zones using agile methodologies and pair programming.

Software Engineer, *Open-Source Projects*   2022 – 2024

Led the development of open-source projects focused on developer tools and applied AI:

- HookHaven: Created a full-stack webhook testing tool for inspecting HTTP requests. Built with React, TypeScript, Node.js, Express, PostgreSQL, and MongoDB with NGINX-based routing, deployed on DigitalOcean.
- Contextual: Built a simple, general-purpose RAG system for markdown files using Typescript, PostgreSQL with pgvector, and the OpenAI API.

SKILLS

Languages & Frameworks
JavaScript, TypeScript, Ruby, React, Astro, Express, Hono, SQL, Jest, HTML/CSS

Cloud
AWS (CDK, Lambda, S3, API Gateway, SQS, RDS, Secrets Manager), Digital Ocean (Droplets)

Other Technologies
OpenAPI, Zod, Node.js, Nginx, Puma, PostgreSQL, MongoDB, Git/Github, Docker

EDUCATION

Waseda University, *B.A. Social Sciences*   2018 – 2022