

Selected Work History (5 years' experience in all)

Full-Stack Developer

University of Southern California (Freelance)

2020–2021

Part of an \$800,000 NASA research grant, *Source-Differentiated Air Quality System* reports air contaminant levels at military bases across the Middle East.

Built using Roda + React + Mapbox GL + Tailwind CSS.

- Sole developer of a **single-page React app + REST API** for summarizing data from a 200GB+ dataset.
- Achieved a **29% reduction in median response time** by replacing the default web server.
- Deployed app to a self-hosted staging server using **Docker + traefik**.
- Conducted client design review meetings to refine functionality and UI.

Backend Developer

Zammad GmbH

2018–2020

Zammad is a unified inbox for all your customer correspondences, over any channel—email, telephone, live chat, Twitter, Facebook, Telegram, and more.

Hybrid open-source + SaaS model (700,000+ downloads / 1,200+ corporate subscribers). Built with Rails + CoffeeScript.

- Completed broad-scoped refactorings & migrations; e.g.:
 - rewrote 13,000+ lines of dense, messy, procedural test logic as **descriptive, self-documenting specs**.
 - replaced home-rolled authentication logic (used in 150+ classes) with a widely-used, commercially-sponsored open-source library.
- Conducted code review for pull requests from community contributors.
- Reduced support team workload by rewriting official docs and Getting Started guide; authored and edited internal literature and marketing copy.

Open-Source Projects

JavaScript Libraries

flatpickr: Lightweight, powerful datetime picker

Contributor

Discovered and built out missing functionality in an official plug-in. Added test coverage around obscure UI bugs.

Linux Utilities

Xferase: Always-on, fully-automated photo import daemon

Creator

Part of a self-hosted alternative to cloud services like Google Photos or iCloud.

Cram: An extensible toolkit for automating Anki flash card creation

Creator

Studying with Anki? Build “notes” (flash cards) faster with cram.

Vim Plugins

Barbaric: Automatic input method switching

Creator

vim + non-Latin input = pain. Barbaric is the cure. (★ 150+ stars on GitHub!)

Praise for Technical Writing

@wilson says: “+300, this is a fantastic diff. As soon as a maintainer notices, I hope it gets merged.”

(via <https://github.com/rbenv/ruby-build/pull/1114>)

@DirtyF says: “Much clearer indeed, thanks for this useful addition to the docs 🙌”

(via <https://github.com/jekyll/jekyll/pull/5912>)

/u/frickenate says : “Thank you so bloody much... Your guide was perfect.”

(via https://www.reddit.com/comments/6k8nw3/_/dqf6h2f/)

Skills

- 💻 Ruby / Rails / Roda / RSpec
- 💻 React / JavaScript (ES6) / HTML / CSS
- 💻 SQL / Relational Databases
- 💻 Linux system administration

Education

- B.A., Urban Studies and Planning
UC San Diego

2010