Jake Pfaffenroth

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EDUCATION

Ph.D., Anthropology   **June 2018**
University of Wisconsin - Madison   *Madison, WI & Remote*

SKILLS

Technical: Javascript, Vue, HTML5, CSS3, Node.js, Express, PostgreSQL, MongoDB, Git
Soft skills: Communication, remote work, teamwork, team leadership, time management, cross-cultural awareness

RELEVANT EXPERIENCE

Museum and Preservation Specialist   **Sept. 2020 — present**
Western Washington University   *Bellingham, WA*
- Designed, built, and deployed a custom MS Access database that is more flexible, maintainable, cost effective, and user friendly compared to existing legacy software it replaced.
- Identified outdated and inefficient procedures and implemented solutions, resulting in modernized daily workflows, better documentation, and increased efficiency.
- Managed a 10-person team in daily operations.

Project Co-Director   **Sept. 2014 – July 2018**
University of Wisconsin - Madison   *Madison, WI & Remote*
- Developed and carried out long-term, scientific research project using quantitative and qualitative data.
- Communicated technical knowledge in official reports, professional presentations, and to non-technical audiences.
- Oversaw a 15-person team in daily operations and managed logistics.
- Built website for public education (https://schroeder.labs.wisc.edu) (modified HTML theme, CSS, Bootstrap).

SELECT PROJECTS

Photo Sharing Platform   Live: carousel.jakepfaf.dev | Github: short.jakepfaf.dev/68e3
Vue, Tailwind, Node.js, Express, PostgreSQL, Redis, Backblaze B2, AWS SES/SNS, Jest
- Created frontend web app with Vue 3 and backend SSR and API with Node.js/Express/PostgreSQL where users create private photo galleries that can be easily shared via a unique link. Invited 'guests' can view shared galleries and receive email/browser notifications without needing to create their own accounts.
- Developed image processing pipeline that creates optimized full- and thumbnail-resolution versions of original file and saves to Backblaze B2 cloud storage, resulting in reduced storage costs and bandwidth needs.
- Solved inefficient image processing pipeline by utilizing data streams and offloading tasks to a Redis queue system. This increased speed, reduced memory load, and eliminated temporary disk storage of uploads.

CSV Data Reformatter   Github: short.jakepfaf.dev/e7f9
Javascript, HTML5, CSS3, Jest
- Developed a web app using javascript, HTML5, and CSS3 that automates complicated and tedious data restructuring of client-uploaded .csv files containing experiment results.
- Wrote unit tests in Jest and Chai to ensure accurate output.
- Handled inconsistent input data provided by client by sanitizing input and allowing output field renaming.

Weather Web App   Live: weather.jakepfaf.dev | Github: short.jakepfaf.dev/68a6
Vue, Node.js, Express, Tailwind,
- Designed and developed responsive web app using Vue 2 and Node.js/Express that fetches ClimaCell API weather forecasts for user location using Geolocation API, or for search locations using HERE geocode API.
- Mitigated rate-limited weather API by implementing a 'demo' mode with static data that automatically turns on when the hourly/daily request quota is reached, allowing the app to continue to function for demo purposes.