Honolulu, HI
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# Lani Akita

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## Experience

**Freelance Full Stack Developer**   **High Esoterica** | Honolulu, HI   **Mar 2023 - Present**

- In 2023, I alone spearheaded the development of a SvelteKit based eCommerce application that leveraged TypeScript, Shopify's Storefront API, Svelte's Stores APIs, Form Actions APIs, and routing APIs, as well as client-storage APIs, and Contentful, which deployed from Cloudflare pages.
- In 2024, I lowered operating costs by pivoting from Shopify to Etsy, and increased visitor engagement by again solely developing a high performance, high-impact, Next.js based PWA that's SEO optimized and content focused. It leverages TypeScript, Contentlayer, mdx-bundler, jstoxml, Serwist, and Next.js' suite of metadata tools and advanced routing APIs. It's deployed via a GitHub Action runner on a serverless architecture on AWS, defined as IaC with SST+Pulumi—a much more cost efficient Next.js hosting strategy (~400% less than Vercel).
- In both I used Tailwind CSS to create a responsive and accessible UI/UX, a GitHub Action for CI/CD, and Cloudflare's DNS service.

**Freelance Full Stack Developer**   **Maitais at Sunset** | Honolulu, HI   **Dec 2021 - Present**

- I raised awareness of my client's podcast by solely developing a GatsbyJS frontend, leveraging Javascript, React, and Tailwind CSS (used to create the responsive UI/UX). Pages were generated from GraphQL queries to the user-friendly Strapi CMS backend, hosted on Heroku, with an attached Postgres DB, with assets stored in Google Cloud Buckets.
- I optimized the site for efficient scalability, in using Cloudflare's CDN, to transfer bandwidth at no cost.

**Freelance Web Developer**   **Students Against Sexual Assault** | Santa Barbara, CA   **Jul 2017 - Aug 2023**

- I rapidly raised awareness of my client's organization (e.g., +10,000 unique visitors per day at one point), by spearheading the development and maintenance of a high impact, cost-effective, reliable WordPress site. It featured resources for victims of sexual assault, a magazine accessible to authenticated users (leveraged the Auth0 plugin), HTTPS routing, and an engaging layout I designed with the Jupiter theme framework.
- One challenge faced in production was due to underestimating my success in raising awareness for my client, as high user demand slowed the Digital Ocean, LEMP stack, VPS hosting the site to a crawl. However, I was able to rapidly implement a solution using a vertical scaling strategy, and returned the production site back to a performant state.

**Research Intern**   **Mazer Laboratory** | Santa Barbara, CA   **Apr 2019 - Feb 2020**

- I helped in saving a project's timeline, as I assisted researchers by leveraging a web scraping algorithm to automate the retrieval of images of Streptanthus tortuosus from UC Berkeley's Jepson Herbarium.

**Director of Publicity**   **Associated Students of the University of California,**   **Jun 2018 - Jun 2020**
**Santa Barbara, Human Rights Board** | Santa Barbara, CA

- I led a team of 6 individuals that successfully developed and implemented marketing strategies that grew event attendance (+250% from years prior) and awareness of our organization (Instagram followers +500% from years prior). I also shared my expertise by teaching Graphic Design & Advertising courses to team members and mentoring them on industry-standard tools (Adobe Illustrator & Photoshop), designing captivating marketing materials, implementing a new brand identity, and consulting on printing logistics.
- While successful in my position, I learned career defining lessons along the way. Most importantly, effective leadership requires setting clear goals and expectations, and recognizing and utilizing individual strengths is vital in creating a successful, cohesive team

**Web Coordinator**  **Associated Students of the University of California,**  Jun 2017 - Jun 2018
**Santa Barbara, Human Rights Board** │ Santa Barbara, CA

- I successfully raised awareness of the organization I volunteered with (fundraising increased by +50K USD from the year prior), by solely developing a visually stunning, cost effective, reliable, WordPress site on a LEMP stack configured Digital Ocean VPS running Ubuntu. Which, hosted meeting minutes, and links to forms for individuals and groups to request funding from the Board. I used the Jupiter theme framework to create a high impact, engaging layout. I implemented industry standard privacy and security practices, such as leveraging Certbot to generate SSL certificates to enable HTTPS routing.

## Projects

**Next.js Portfolio/Blog PWA** │ laniakita.com │ github.com/laniakita/website        **Feb 2024 - Present**

- I engineered my site for long term maintainability, scalability, accessibility, and high performance. To do so, I leveraged TypeScript, Bun, Tailwind CSS, @react-three/a11y, along with Serwist to build this React+Next.js PWA, in a monorepo (Turborepo) on GitHub. I also replaced Webpack with Turbopack to rapidly speed up compilation times during development, enhancing the developer experience (DX).
- To protect API endpoints, I implemented a memory optimized, Sliding Window Counter rate limiter (similar to the one used by Cloudflare) in the app's Middleware.
- I leveraged Bun's testing suite to run unit and integration tests in tandem with a GitHub Action runner, which ultimately deploys the application if it passes, to a serverless AWS architecture declared as IaC using SST+Pulumi.
- Using Three.js/React Three Fiber, and raw loader, I implemented shaders written in GLSL, and created integrated, immersive, and vivid digital experiences that are featured across the site.
- I used Bun as a speedy package manager/runtime (File I/O APIs, testing suite) in prebuild scripts.
- I implemented a custom CMS with TypeScript, Bun, Drizzle ORM, and SQLite/Turso, before switching to Contentlayer for better reliability and less maintenance.
- I used Tailwind CSS to create traditional CSS animations, and an accessible, responsive, UI/UX.
- I used Zustand for advanced state management.
- I use jstoxml to generate the blog's Atom Web Feed, which is served via a Route Handler endpoint.
- I implemented Next/OG on a Route Handler endpoint, to generate Open Graph/Twitter images on every route, to ultimately create engaging social media posts when a link to the page/post is shared.
- I developed and utilized a Nix Flake to maintain a consistent and reproducible development environment across personal NixOS workstations/environments.

## Technologies & Languages

**Languages** │ TypeScript, Javascript, Python, HTML, XML, PHP, CSS, GLSL, Nix, Lua

**Frontend Technologies** │ Next.js, SvelteKit, React, Svelte, Three.js, React Three Fiber, Threlte, Zustand, Tailwind CSS

**Backend Technologies** │ Node.js, Bun, Drizzle ORM, SQLite, Postgres, JSON, YAML

**Cloud & Development tools** │ AWS, Cloudflare, Vercel, GitHub Actions, SST, Pulumi, Podman, Docker, NixOS, WSL, Distrobox, Webpack, Turbopack, Vite, Turborepo, Git, Jest, Vitest, React Testing Library, Happy DOM

**Other** │ Data Structures & Algorithms, Progressive Web Applications (PWA), Progressive Enhancement, Serverless Computing, Edge Computing, Server-Side Rendering (SSR), Static Site Generation (SSG), Distributed Systems, Responsive Design, Accessibility, Continuous Integration / Continuous Delivery (CI/CD), Infrastructure as Code (IaC), Immutable Operating Systems, Reproducible Environments

## Education

**BSc Biological Sciences** │ University of California, Santa Barbara        **Sep 2016 - Dec 2020**