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Featured Projects



Logospell - *personal*

logospell.com

Creator and sole developer of Logospell, a productized MCP server for AI image generation that lets any MCP client create a cohesive, consistently styled set of images ready for drop-in use. It produces solid- or transparent-background image sets, styled from a text description, reference images or both, plus single composed illustrations in a range of aspect ratios. Free follow-up tools resize or reformat a finished set without regenerating it and export it as icon bundles for web, iOS, Android and Flutter at every screen density. Requests are validated up front so likely failures are caught before the expensive image model runs, and credits are charged only on a fully successful result, from one Stripe-backed balance shared by MCP clients and a browser generate page. Listed in the official MCP Registry; runs in production behind a Cloudflare WAF with rate limiting and mutual-TLS origin protection.

Stack: Go, Model Context Protocol (MCP), Google Gemini, Vue 3, Stripe, OAuth, PostgreSQL, Docker, Google Cloud Run, DigitalOcean, Cloudflare, AWS SES, OpenTofu, nginx.



RedShoesAgent - *personal*

redshoesagent.com

Creator and sole developer of RedShoesAgent, a voice-controlled real estate listing platform in production for a brokerage on the RANWW MLS, covering 29 counties of Northwest Wisconsin. Visitors can search, filter and browse listings entirely by voice: spoken commands work across the whole interface, including open dialogs and photo carousels, and every one of the 140-plus filters the UI offers can be set by voice. The voice agent isn't tied to a single AI provider and runs with enforced spending limits. A nightly pipeline rebuilds an embedded SQLite database from the MLS feed, adds what the feed lacks (price history and recently sold homes nearby), and rolls back automatically if a run fails. Runs on a DigitalOcean VPS managed with OpenTofu, behind Cloudflare with layered abuse protection.

Stack: Vue 3, Go/Gin, SQLite, MapLibre GL JS, Gemini Live, xAI Grok Voice, Docker, OpenTofu, DigitalOcean, Cloudflare (Turnstile, rate limiting), AWS SES.



git-pkgs/proxy - *open source*

github.com/git-pkgs/proxy

Contributor to git-pkgs/proxy, an open-source Go caching proxy for more than 20 package ecosystems, including npm, PyPI, Composer, Cargo and Maven. Ten merged pull requests on performance and correctness under concurrent load, driven by putting Wikimedia CI's npm and Composer dependencies behind it. Concurrent requests for the same uncached package now share a single upstream fetch however many arrive at once, which also eliminated intermittent 502 errors. Registry metadata got the same sharing, so a burst of clients fetches each document once rather than once per client. Batching cache-hit writes more than doubled throughput on SQLite, and caching rewritten metadata made those responses 15 to 36 times faster. Further fixes closed storage races between concurrent fetches and an eviction pass that could loop forever. Also load-tested other contributors' performance PRs with CI-shaped traffic. The work builds on git-cache-proxy, an earlier git caching proxy of mine that solved the same concurrent cold-cache problem with per-repo locks.

Stack: Go, SQLite, PostgreSQL.

Mediawiki-Quickstart - *Wikimedia Foundation*

gitlab.wikimedia.org/repos/test-platform/mediawiki-quickstart

Creator and main contributor of Mediawiki-Quickstart, a Docker-based MediaWiki development environment with folder-based skin and extension manifests. Used by test engineers and some QA testers. Supports both Selenium and Cypress test suites against MediaWiki extensions and handles multi-component dependency graphs (e.g. WikibaseLexeme pulling in Wikibase) so spinning up one extension brings its real dependencies rather than failing at runtime. MediaWiki and the test runner are both fully containerized, yet the browser tests stay watchable live: the runner's browser renders to a companion container's virtual framebuffer, which a lightweight noVNC server streams to your browser. Each component's manifest folder can carry its own docker-compose, so an extension that needs a backing service like Elasticsearch brings that container up as part of its install.

Stack: Docker, OpenTofu, MediaWiki, PHP, YAML, Selenium, Cypress, noVNC, Bash.

Pixel - *Wikimedia Foundation*

gitlab.wikimedia.org/repos/test-platform/pixel

Author of the ground-up rewrite and main contributor of Pixel, Wikimedia's visual regression testing framework. Replaced a monolithic MediaWiki configuration with per-project configuration folders (each owning its own skins, extensions, MySQL backup, and `LocalSettings.php`), delegated MediaWiki spin-up to a separate tool (Mediawiki-Quickstart) so the testing framework no longer has to know about it, and replaced a monolithic Node.js host orchestrator with small, declarative, single-purpose shell scripts. Design goal: decouple tests from provisioning, so a failing test reflects a change in the thing under test, not drift in how MediaWiki happened to be spun up. A temporal retention policy prunes screenshot history (keep all under a day, daily samples for a week, weekly older) so the result archive stays bounded.

Stack: Docker, OpenTofu, MediaWiki, shell, BackstopJS.

Experience

Software Engineer, Wikimedia Foundation

April 2013 to present

Started on the Wikipedia iOS app team, then moved to Release Engineering and Test Platform, where recent work has focused on developer tooling, visual-regression testing, and Docker-first local development for MediaWiki. The Mediawiki-Quickstart and Pixel projects above were built in this role.

Skills (from recent work)

Languages	Go, TypeScript / JavaScript, PHP, Python, Bash
Frontend	Vue 3, Vite, MapLibre GL JS
Backend	Go / Gin, SQLite, PostgreSQL, HTTP / JSON APIs, Stripe, OAuth and magic-link auth
Testing	Selenium, Playwright, Cypress, BackstopJS visual regression
AI / LLM	Model Context Protocol (MCP) servers, Google Gemini (image generation and Live voice), realtime voice agents, authoring custom Claude Code Skills
Imaging	Pixel-level image processing pipelines
Infrastructure	Docker, OpenTofu / Terraform, AWS (S3, CloudFront, SES), Google Cloud Run, DigitalOcean, Cloudflare, nginx, GitHub Actions