

Michael Barry

Senior Full-Stack & Platform Engineer | Team Lead

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SUMMARY

Senior full-stack and platform engineer who architects and owns data-intensive applications, web maps, and operational workflow systems end to end, serving 50+ client organizations and spanning hundreds of production features across government and regulated environmental systems. I lead a six-person development team and work directly with clients from discovery and scoping through architecture, delivery, and years of maintenance. I also design and ship software independently through my own LLC.

EXPERIENCE

Full-Stack Engineer & Team Lead — LRE Water, a Spheros Environmental company (remote) 2021 – Present

- Own architecture and end-to-end delivery for applications serving 50+ government agencies, municipalities, utilities, irrigation companies, and conservation districts: web mapping and spatial-data visualization, regulatory workflows, telemetry, reporting, field data management, and public portals.
- Lead the six-person Water Information Technology core development team (three direct reports) since 2024; mentor developers and present on engineering practices to the team and the ~400-person firm.
- Partner directly with project managers, domain scientists, and client organizations to turn loosely defined operational needs into scoped applications, architectures, and budgets, and contribute the software sections of proposals.
- Applications routinely integrate millions of time-series water-data records, thousands of monitored locations, dozens of GIS layers, and third-party telemetry and SCADA feeds.
- Created the team's Turborepo monorepo, which has carried the majority of its application development since 2025: 15 production applications, 8 shared packages, and 3 code generators that reduced provisioning a fully authenticated application (Auth0, Sentry, migrations, seeded roles) from days of manual setup to minutes.
- Designed a shared product-line architecture separating platform, domain, and client-specific code, with dependency boundaries enforced through static analysis in CI, preventing customized client applications from drifting into unmaintainable forks.
- Engineer multi-tenant systems trusted with regulated compliance data: Auth0 scoped RBAC, field-level audit trails, batch import with review-then-commit workflows, PostGIS spatial joins, and materialized views for time-series telemetry.
- Selected for the company's first AI pilot and now help build company-wide internal AI tooling; established a workflow built around written specifications, agent-assisted implementation, review loops, and CI quality gates.

Founder & Developer — Michael Barry Web Development, LLC (Portland, Maine) 2022 – Present

- Design, build, and ship production web applications and sites end to end for clients, such as RepoMaine (asset-recovery lead generation), Friends of Riverton (neighborhood nonprofit), and a full gym-site rebuild for CrossFit MF.
- Delivered React/Next.js data-visualization features for PineSpire's fleet-electrification dashboard (vehicle fleet data, energy usage, generated carbon credits) and later for its spin-off, Anvil Monitor.
- Built CommuniFit end to end: a neighborhood fitness platform where neighbors browse free local group events, RSVP, or host their own, with realtime notifications, transactional email, and a full admin and moderation suite; built with Next.js and Supabase across 40 SQL migrations, with row-level security and database-enforced capacity and waitlist rules.

SKILLS

Architecture & Platform: multi-tenant SaaS, monorepos / Turborepo, RBAC (Auth0), row-level security, audit trails, REST APIs, CI/CD

Languages & Frontend: TypeScript, JavaScript, React, Next.js, Tailwind CSS, Material UI (MUI), shadcn/ui

Backend & Data: Node.js, Express, Python, PostgreSQL / PostGIS, Supabase, GraphQL, Drizzle, Prisma, Sequelize

Mapping & Visualization: Mapbox GL JS, ArcGIS, GeoJSON, vector tiles, D3, Recharts

Cloud, DevOps & Testing: AWS (S3, EC2), Docker, GitHub Actions, Vercel, Sentry, Vitest, Playwright

AI-Assisted Development: Claude Code, spec-driven agent workflows, code generation, review loops, CI quality gates

EDUCATION & EARLIER CAREER

B.A. Music Business, SUNY Oneonta · Self-taught developer; first production software shipped in 2021

Earlier leadership: 12+ years of restaurant operations and general management, including opening high-volume concepts and running a sixteen-venue food hall; owned P&L, hiring, and large teams.