Derek Novak Software Engineer

Austin, TX ✉ derek.novak1@gmail.com ⬡ dereknovak in derek-novak

---

Profile

I'm a full-stack software engineer from Austin, TX with multiple years of experience in the JavaScript and Ruby ecosystems. Recently, I built Vispyr, an end-to-end observability platform that automates AWS deployment and simplifies telemetry setup for small engineering teams. Having earned multiple degrees from distinguished institutions, I combine disciplined problem-solving and a passion for continuous learning to design elegant, high-impact software solutions.

Professional Experience

Creator & Software Engineer, *Vispyr (https://vispyr.com)* 🔗 2025 – Present
- Built an end-to-end observability solution combining continuous profiling with traditional telemetry signals, enabling small development teams to connect runtime performance data directly to application code without prior observability experience.
- Architected a comprehensive CLI tool in TypeScript automating AWS infrastructure deployment and teardown using CDK, EC2, S3, IAM, and CloudFormation, simplifying a 35+ step manual process into a single command.
- Created agent tooling that streamlines the instrumentation of Node.js applications through existing CI/CD processes. (OpenTelemetry, Prometheus, Bash)
- Containerized an integrated telemetry pipeline connecting observability agents to data storage and visualization systems, allowing seamless data flow across the entire observability stack. (Grafana Alloy, Prometheus, Tempo, Pyroscope)
- Provisioned an interactive dashboard that integrates metrics, traces, and profiles, providing unified visibility into application performance and runtime behavior.
- Constructed a demo application using React and Express with UI controls that imitate application behavior, generating telemetry data for development testing and providing real-time visualization for interactive user experimentation.
- Designed the company website in Astro using a component-based architecture and global state management, creating a performant frontend while also serving as a central hub for project documentation.

Software Engineer, *Self-Employed* 2023 – 2025
Developed open-source software using a variety of technologies. Selected projects:
- FoodLocator: a RAG application developed using OpenAI, PGVector, and PostGIS, designed to identify the closest restaurants along a travel route using natural language queries.
- Vortex: a tool used for inspecting webhooks and HTTP requests, built with Flask, React, PostgreSQL, and MongoDB.
- PackTrack: a virtual storage management system created with Sinatra and PostgreSQL, featuring comprehensive CRUD operations and a fully encrypted login experience.

Private Lesson and Masterclass Facilitator, *Independent Contractor* 2017 – 2019 | Dallas, TX
- Orchestrated multiple semester schedules, meticulously arranging half-hour lessons for over 50 students across 10 schools while ensuring optimal learning experiences for each student.
- Partnered with school music instructors to tailor personalized curricula, ensuring alignment with students' abilities, interests, and academic goals to maximize lesson effectiveness.

Skills

Frontend
React, Node.js, Astro, Vite, DOM, Tailwind, HTML/CSS, WebSockets

Backend
TypeScript, Express, Ruby, Sinatra, Python, Flask, SQL, PostgreSQL, MongoDB/Atlas, Bash, Linux, RESTful API

Cloud
AWS (IAM, SDK, CDK, EC2, S3, CloudFront, RDS), DigitalOcean

Other
Docker, Git, Nginx, Jest, OpenAI, Claude, VectorDB, LangChain, OpenTelemetry, Grafana Stack, Postman

---

Education

Master of Music, *DePaul University* 2019 – 2021 | Chicago, IL
Graduated with Distinction

Bachelor of Music Education, *Baylor University* 2012 – 2017 | Waco, TX
Dean's List (2014, 2016, 2017)