Dane Springmeyer

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Hands-on engineering leader with 20+ years in mapping, real-time rendering, and developer platforms — trained as a cartographer before becoming an engineer. At Mapbox I led engineering as Engineering Manager, Director of Engineering (Asia-Pacific Platform), and Head of Developer Tools, managing teams of up to 15. Today I'm in a deliberately hands-on, org-wide role at Read AI, building the engineering and data foundations for human and agentic development through the AI shift. Equally at home setting technical direction and writing the code — from GPU shaders and rendering backends (Metal, Vulkan, SwiftShader) to developer tooling and platforms. Founding engineer on Mapbox's rendering systems; lead author of the Mapbox Vector Tile Specification.

Professional Experience

Read AI — Apr 2025 – Present

- Senior Staff Software Engineer with an org-wide technical mandate; recurring architect and tech lead on cross-team initiatives. Building the foundation for better human and agentic development across the company.
- Architected internal preview environments (per-branch, isolated deployments) so engineers, reviewers, product managers, and agents can collaborate on live product features before they reach production.
- Built an org-wide GitHub automation repo of reusable workflows, actions, and best practices.
- Built an AI skills framework for engineering and product, with a shared repo, linting, evaluation, and auto-distribution.
- Hardened release and deploy pipelines for critical applications with blue/green deployments, instant rollback, and circuit breakers.
- Built a data lake unifying key company data and metrics for querying, visualization, and analysis; added agentic orchestration for data insights and observability.

Dane Springmeyer LLC — 2023 – Apr 2025

- Principal Owner. Fixed rendering issues directly in MapLibre GL Native on contract — unlocking proper label and icon alignment at high pitch levels. Took the MapLibre Vector Tile Specification from research-grade to a working implementation — hardened the Java encoder into a reliable tool and wrote an optimized TypeScript decoder to integrate the new tile spec into MapLibre GL JS.

Mapbox — 2013 – 2022

- **Engineering leadership (2017–2022):** Engineering Manager (Core Tech), then Director of Engineering (Asia-Pacific Platform; SF/Beijing/Shanghai), then Head of Developer Tools (team of 10+). Managed engineers and tech leads, developed roadmaps grounded in user research, balanced competing stakeholder priorities, and oversaw community stewardship of key open source projects (e.g. node-sqlite3).
- Ran the Maps org's engineering design-review forum (40+ engineers): curated and pre-vetted feature proposals, convened directors, the CTO, and — when needed — the CEO for go/no-go decisions, and shepherded approved designs through to ship.
- Mentored senior tech leads and aspiring managers on leadership and hard team challenges — at the CTO's request and sought out by peers.
- Founding engineer on rendering systems: C++ software renderer; lead maintainer of the first Mapbox rendering engine, Mapnik. Then helped pioneer the next-generation OpenGL/WebGL renderer (Mapbox GL Native). Built, debugged, packaged rendering backends touching Metal, Vulkan, and SwiftShader.
- Designed and scaled server-side rendering using SwiftShader (GPU-to-CPU emulation), en-

abling thousands of concurrent map rendering jobs on AWS ECS. Created node-mapnik for cross-platform programmatic access to the rendering engine.

- Co-launched TileMill, a cartographic design tool used by thousands of mapmakers at non-profits, newsrooms, and governments. Spent years doing frontline user support — working directly with cartographers and designers, learning their workflows and frustrations, and translating what they needed into engineering priorities.
- Lead author of Mapbox Vector Tile Specification; designed data formats for efficient streaming of geographic features into rendering clients and tools. Promoted the spec at conferences including SOTM and FOSS4G.

Development Seed — 2010 – 2012

- Senior Software Engineer. Built the early Mapbox tile stack and rendering pipeline — Mapnik-based map rendering, TileMill packaging, and Node.js C++ addons — the technology Mapbox spun out to build on.

Skills

Technical

- **Languages:** Frequently C++, Python, JavaScript. Contributed in Erlang, Java, Ruby, Rust.
- **Rendering:** Real-time graphics; rendering pipeline debugging and optimization; style language and data format design.
- **Infrastructure:** Linux, distributed systems, build systems, performance profiling and tuning, technical writing, code review.

Management

From 2010, first at Development Seed and then at Mapbox, I grew from senior engineer to engineering leader. I joined as a founding engineer on the rendering systems and was leading other engineers well before it was my formal title — then formally as Engineering Manager, Director of Engineering, and Head of Developer Tools (2017–2022), running teams of up to 15. I manage with that technical grounding intact: I can push a roadmap to be both ambitious and realistic, and the same depth tells me when to step back — giving senior engineers the autonomy and room to experiment, and to fail, that their best work needs — and when to step in and row alongside someone who owns a project but needs a hand.

- Mentoring engineers and supporting career growth; recruiting and onboarding.
- Developing roadmaps grounded in user research — gathering feedback from cartographers, designers, and developers to shape what gets built.
- Serving as liaison between design-oriented tool users and core rendering technology teams.
- Balancing competing stakeholder priorities while allocating resources across projects.
- Fostering adoption of tools through documentation, training, and conference advocacy.
- Managing conflict: coaching written communication; blameless postmortems; cross-team feature review.

Education

Thomas J. Watson Fellowship — 2002 – 2003

- Grant from the Thomas J. Watson Foundation. Research on international volunteer-based organizations across diverse cultures and languages.

BA Geography & Biology, Middlebury College — 1998 – 2002

- Cartographic design and remote sensing. Foundation in how maps communicate visually — the design principles that later informed my approach to building rendering tools.