Stephen Crosby

Software Engineer | Architectural Leadership | Product Growth

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Professional Summary

Senior software engineer with 20 years of experience building web platforms, APIs, and developer tooling. Most recently built tooling that lets AI agents work through engineering tickets on their own. Before that, launched a new line of business that surpassed $5M ARR in its first 12 months and moved DocSend's engineering org to GraphQL and a separate React frontend.

Core Skills

- **Languages**: JavaScript/TypeScript, Ruby, Go, Python, C++
- **Frontend**: React, modular packages, design systems
- **Backend & Data**: Postgres, MySQL, GraphQL, Redis, MongoDB
- **Infrastructure**: AWS, Kubernetes, Helm, Docker, Podman, Terraform, CI/CD
- **AI & Agents**: agentic workflows, MCP, agent skills, sandboxed agent execution
- **Practices**: API-first design, system architecture, DDD, OOP, functional programming, mentoring, debugging, scaling distributed systems

Experience

Dropbox – Senior Software Engineer (IC4), DocSend

Remote | Nov 2021 – Oct 2026

- Wrote the vision for AI-driven autonomous engineering at DocSend, aiming for **20%** of Jira tasks to reach a human-approved GitHub PR with no significant changes requested, then built the agent skills to make it work. The skills gather full ticket context by following links across linked services, implement the task, and post a narrated video demo to the PR. The demo shows reviewers the UI works and lets the implementing agent check its own work.
- Started an internal skills marketplace for engineers and agents working on DocSend. Engineers now build and share skills with one another in the marketplace.
- Built a sandbox system for running agents safely in parallel: isolated Linux containers per environment, each with all the services the app needs. Replaced S3, DynamoDB,

and Elasticsearch with lightweight local equivalents, and modified zincsearch, a much lighter Elasticsearch alternative, to pass our full test suite. This made it possible to run a dozen agents at once on one 32GB laptop. Added a per-sandbox MCP/TCP proxy for egress firewall rules, then ported the stack to Dropbox's Nova agent platform (Helm) and, through Podman on Linux and Mac, to a second internal agent environment in about a week.

- Architected and launched Advanced Virtual Data Rooms, a new line of business built with two engineering teams. It reached **$5M ARR in its first 12 months**, has since passed $10M, and is the strongest growth driver in DocSend since launch. Trained the team on faster frontend practices so a critical 2024 marketing launch shipped on time.
- Turned DocSend's multi-step checkout into a single step to recover the drop-off at each step. Checkout conversion rose **5.2%**, with a projected 9% ARR increase. Worked with Engineering, Product, Finance, and Data Science to clear financial reporting blockers, and removed the legacy checkout code.
- Moved DocSend engineering from ad-hoc jQuery AJAX calls (informal JSON, sometimes carrying HTML) to GraphQL. When the first proof of concept was unpopular, wrote the case in a doc and ran it as an experiment, with quarterly engineering satisfaction surveys and a promise to roll back if the org wasn't satisfied. After about a year of maintaining both approaches, the org committed. Today all new data fetching and mutations go through GraphQL, new work has a fully separate frontend, and most legacy pages are now pure React using GraphQL, codegen, and TypeScript.
- Retired the legacy Rails asset pipeline (Sprockets), saving about **730 engineer-hours** a year.

Google – Software Engineer, Search

Mountain View, CA | Mar 2021 – Nov 2021

- Built a query language and engine that let engineers analyze massive log datasets and pull out targeted insights.
- Conducted usability research to guide new product development in Search infrastructure.

SecureDocs – Principal Software Engineer

Goleta, CA | Oct 2017 – Mar 2021

- Designed serverless workflows on AWS Lambda and Kinesis for large-scale document processing.
- Built and maintained the GraphQL API (Ruby/MongoDB) that gave all products a single access layer.
- Cut CI/CD build times from **90 to 15 minutes** and per-build cost to **$0.25** using Terraform, Docker, Drone.io, and AWS autoscaling.
- Rebuilt the e-signature product to support complex workflows, and wrote a SAML service provider that hundreds of enterprise customers adopted.

- Prototyped a migration from MongoDB to Postgres that solved the “dual-write” problem and gave us transactional guarantees.
- Mentored junior engineers and worked directly with customers on escalations.

RightScale – Senior Software Engineer

Santa Barbara, CA | Aug 2010 – Oct 2017

- Led a team of 8 to 12 engineers through a multi-year refactor of a core component that had become unmaintainable, restoring stability and making iteration safe.
- Created the Global Object and ACL services (Ruby/Postgres) that handled identity, authorization, and authentication across global-scale systems.
- Containerized legacy systems, cutting infrastructure costs by **30%**.
- Designed the New Server Wizard, used to launch millions of customer cloud instances.
- Built the Network Manager UI for managing cross-cloud networking resources.
- Implemented the i18n strategy that opened up sales growth in Japan.

The Fresno Bee – Web Developer

Fresno, CA | May 2006 – Aug 2010

- Built newsroom publishing software for election results, weather/air quality data, and GIS crime maps.
- Developed and maintained a high school sports statistics database in PHP/MySQL.

Education

California State University, Fresno — B.S. Computer Information Systems (2007)

Leadership & Community

- Open source software contributor
- Eagle Scout
- Private pilot & wilderness enthusiast