NateAshby



contact

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nateashby.com

technical focus

Distributed Systems
Developer Platforms
Developer Tooling
Infrastructure & Reliability
Observability & Logging
CI/CD & Release Systems
Large-Scale Data Processing
Tracing & Metrics
API Design

languages

TypeScript, JavaScript, Golang, C/C++, Rust, PHP

platforms

AWS, Linux, Docker, Android

data

SQL, NoSQL, Distributed Data Stores

frameworks

React, Redux, RxJS, GraphQL

summary

Full-stack software engineer with 12+ years building large-scale platforms, developer tooling, and distributed systems from 0-to-1. Proven track record leading high-leverage initiatives at Meta and AWS that improve engineering velocity, observability, and execution at org scale. Known for operating in ambiguous problem spaces, driving cross-team alignment through influence over authority, and mentoring senior engineers through complex technical and organizational challenges. Deliberate about shaping systems and organizations through technical vision, architecture, and hands-on product ownership.

experience

Meta Oct 2021 – Present
Senior Software Engineer

- Led development of multiple internal platforms spanning developer productivity, observability, and execution workflows, architecting full-stack solutions from frontend to backend used across teams.
- Designed and deployed Lumberyard, an AI-assisted logging and analysis platform queried by engineers and by AI agents multiple times per second, cutting start time from 1.5 seconds to 60 ms (25x faster) and reducing time-to-fix and logging costs through intelligent filtering and token optimization.
- Designed a custom VS Code extension that collapsed complex cross-device debugging into a single click, driving a 50x increase in tooling usage and faster debugging for mobile and hardware-integrated systems, meeting developers where they already work.
- Led the design and rollout of a scalable dogfooding platform adopted across multiple orgs, driving 250% increase in internal alpha testing coverage and accelerating hardware/software feedback loops by enabling non-engineers to run programs end-to-end.
- Architected planning and dependency platforms powering cross-org strategic initiatives across millions of internal tasks, improving ownership clarity, dependency management, and alignment on multi-quarter goals.
- Acted as technical leader on multi-team efforts, setting architectural direction, establishing engineering standards, mentoring senior engineers, and influencing roadmap decisions beyond immediate team boundaries.

Amazon Web Services Nov 2020 – Oct 2021
Software Development Engineer

- Owned and evolved core infrastructure for EBS Snapshots, supporting 10+ PB of daily data transfers across regions with strict durability and availability requirements.
- Led the migration of critical snapshot features between services through design reviews and operational readiness work, deprecating legacy systems, improving reliability, and saving $750K annually in operational costs.
- Designed and built foundational infrastructure and service dependencies enabling EBS Snapshot services to launch in new AWS regions.
- Operated in a high-blast-radius environment, driving staged rollouts and long-term maintainability for mission-critical storage systems.

Berkadia Oct 2017 – Nov 2020
Lead Software Engineer (Technical Lead & People Manager)

- Served as technical lead and people manager across two development teams, owning system architecture, delivery execution, and team health in a highly regulated financial domain.

- Architected and built GraphLib, a real-time DAG modeling engine that turned complex Excel valuation logic into interactive models and became the core of Quick Val, a multi-million-dollar-a-year service, saving thousands of hours in development time.
- Led the modernization of legacy monolithic systems into scalable microservice-based architectures, balancing regulatory requirements, operational risk, and long-term platform sustainability.
- Built and managed high-performing engineering teams through hiring, mentoring, and career development of 12 people, while maintaining hands-on involvement in system design and critical technical decisions.
- Established engineering standards and served as primary escalation point for complex technical decisions, aligning product, compliance, and engineering stakeholders.

Icon Health and Fitness Oct 2013 – Oct 2017
Software Engineer in Test

- Designed and built Testr, a distributed mobile test execution system coordinating worker nodes and physical device pools, converting 48-hour UI test runs to 2 hours (100x throughput increase) and enabling reliable validation across diverse hardware configurations.
- Developed emulation and automation frameworks that eliminated approximately 90% of manual test cycles, saving thousands of engineering hours across QA teams and dramatically improving feedback speed and release confidence.
- Built custom Raspberry Pi and USB-based automation tooling, integrating hardware and software test workflows with real-time operational visibility through a centralized frontend.

Utah State University May 2014 – Nov 2014
Thermonuclear Plasma Physics Research Assistant

- Engineered a real-time electromagnetic radiation detection system for tokamak-based fusion research, achieving nanosecond-scale data capture and analysis.

education

Utah State University
B.S. Computer Science, Specialization in Software Development, Minor in Physics

projects

Lumberyard: High-performance cross-device log processing and observability platform for Android and iOS systems. Enabled real-time filtering, aggregation, and AI-assisted analysis of live and historical logs, significantly reducing debugging time and logging costs through structured pipelines and token optimization.

Dogfooding Platform: Org-wide internal platform enabling non-engineers to manage hardware and software dogfooding programs end-to-end, including enrollment, compliance, inventory, and experimentation. Drove a 250% increase in internal alpha testing coverage and accelerated feedback loops across multiple product lines.

OKR Platform: Internal strategy and execution platform for defining OKRs and modeling cross-team dependencies. Integrated with task and metrics systems for automated progress tracking, leadership reporting, and chatbot-driven updates, improving alignment and execution predictability across multi-quarter initiatives.

GraphLib: Core modeling platform that transformed spreadsheet-driven financial workflows into real-time directed acyclic graph (DAG) systems. Enabled interactive commercial real estate valuation, allowing users to explore complex dependency-driven scenarios with immediate feedback while improving performance and correctness.

Testr: Distributed mobile test execution system coordinating dynamic worker nodes and physical device pools. Scaled UI test throughput by orders of magnitude while intelligently isolating failures across test code, application logic, and infrastructure, providing real-time operational visibility through a centralized frontend.