NateAshby

summary

Staff-level software engineer with 12+ years of experience building large-scale internal platforms, developer tooling, and distributed systems. Proven track record of 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, and mentoring senior engineers through complex technical and organizational challenges. Deliberate about shaping systems and organizations through technical vision, architecture, and influence without authority.

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

platforms
AWS, Linux, Docker, Android

data
SQL, NoSQL, Distributed Data Stores

frameworks
React, Redux, RxJS, GraphQL

experience

Meta Oct 2021 – Current
Senior Software Engineer (Staff-level scope)
- Architected and led development of multiple internal platforms spanning developer productivity, observability, and execution workflows used across teams.
- Drove significant gains in developer velocity by designing a custom VS Code extension that collapsed complex cross-device debugging workflows into a single-click experience, reducing time-to-debug for mobile and hardware-integrated systems.
- Designed and deployed an AI-assisted logging and analysis platform that decreased time-to-fix metrics and reduced logging costs through intelligent filtering and token optimization.
- Led the design and rollout of a scalable dogfooding platform adopted across multiple orgs, increasing internal alpha testing coverage by 250% and accelerating hardware/software feedback loops.
- 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 lead on multi-team efforts, setting architectural direction, 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, deprecating legacy systems and improving reliability while 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 design reviews, operational readiness, 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 core modeling platform that replaced complex Excel-based workflows with real-time directed acyclic graph (DAG) systems, enabling performant, interactive commercial real estate valuation.
- 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, 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 a distributed mobile test execution system, increasing UI test throughput by over 100x and enabling reliable validation across diverse hardware configurations.
- Developed emulation and automation frameworks that eliminated approximately 90% of manual test cycles, dramatically improving feedback speed and release confidence.
- Built custom Raspberry Pi and USB-based automation tooling, integrating hardware and software test workflows and saving thousands of engineering hours across QA teams.

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

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

projects

Selected internal platforms and systems with org-wide impact:

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.

interests

professional: tooling, distributed systems, software development, machine learning, robotics
personal: astrophysics, space travel, pyrotechnics, extreme sports, inventing, woodworking, cooking, flying, energy, humanitarian projects