

Tripp Cashel

Principal Engineer · Software systems & AI infrastructure

cinderworks.ai · github.com/tcashel

EXPERIENCE

Magnite

2021–present

Principal Engineer (January 2026–present) · Staff Software Engineer & Technical Lead (2021–2025)

- Architected the original prototype agent platform and supporting gateway with engineering leadership and teammates; guided a teammate's implementation of the AI gateway.
- Designed a shared MCP tool layer for internal and customer-facing agents; parts of the design and configuration continue in the successor platform.
- Developed OAuth integration, caller identity, account context, rate limiting, and audit logging with the gateway team.
- Led a team implementing auction logic and data-science algorithms in C++. Helped design and implement a metrics framework that moved checks to compile time.

SpotX

2016–2021

Software Engineer → Senior Software Engineer & Technical Lead (2020)

- Reverse engineered an undocumented PHP microservice and reimplemented it in C++; the resulting service became limited by the server's network interface.
- Led design and implementation of an auction-pricing change across the auction, beacon generation, and logging.
- Built a multithreaded C++ benchmarking tool and introduced compiler caching.

PW Power Systems

2012–2015

Electrical Engineer

- Engineered turbine and generator vibration monitoring and generator breaker protection; diagnosed operating-plant issues remotely and on site.
- Led technicians through a fleet gas-valve-driver upgrade and served as lead engineer for vibration-monitoring hardware on a new engine.

INDEPENDENT PROJECTS

- Juice — Built a native macOS app for searching coding-agent history and inspecting the records behind results. Publicly installable through Homebrew; closed source.
- Forge — Build an open-source Rust system for coordinating coding agents, durable task state, recovery, review, and GitHub delivery.
- AiChat — Build an application with streaming agents, tools, document retrieval, and sandboxed execution; the foundation for this portfolio.

EDUCATION & RESEARCH

University of Denver

2015–2017

M.S., Electrical Engineering · Graduate teaching assistant, 2016–2017

Thesis: Risk Optimized Microgrid Resource Management (2017). Modeled day-ahead microgrid scheduling with risk-adjusted prices using conditional value at risk. Evaluated four participation scenarios.

Boston University

2007–2011

B.S., Electrical Engineering