Bryant Finney

Principal Engineer

finneybp@gmail.com | Boston, MA | LinkedIn | GitHub

With more than 14 years of engineering experience across multiple industries, I bring positivity and a growth mindset to every team I join. My passion for learning, collaboration, knowledge sharing, and technology has equipped me to lead engineering teams to success.

Skills

DOCKER | PYTHON | TERRAFORM | JAVA | C | RUST | CMAKE | JAVASCRIPT | TYPESCRIPT | AMAZON WEB SERVICES (AWS) | SOFTWARE ARCHITECTURE | AGENTIC AI | DICOM | REST | GRAPHQL | MICROSERVICES | NETWORKING | CI/CD | AGILE | DATABASE DESIGN | DJANGO | CELERY | RABBITMQ | REDIS | FASTAPI | MYSQL | POSTGRES | CYBERSECURITY | AUTOMATION | LINUX | GIT | SHELL SCRIPTING | SYSTEMS ADMINISTRATION | REACT | HTML | CSS

Work Experience

Principal Platform Engineer — Elucid

2023 October - 2026 September — Boston, MA (hybrid)

As Elucid's Principal Platform Engineer, I led the architecture, design, and implementation of the cloud platform that powers the company's arterial analysis software. My responsibilities spanned platform infrastructure, release engineering, and site reliability — guiding the evolution of a regulated medical-imaging product from desktop application to cloud-native SaaS.

Platform Architecture

Responsibilities:

- lead the design and implementation of an AWS ECS-based containerization platform for the company's arterial analysis software, reducing production deployment time from hours to under five minutes
- architect Docker images for the platform's GPU workloads: PyTorch inference models with CUDA support, and a C++ rendering service built on VTK, EGL/OpenGL, and the CUDA runtime

- author the reference Docker image for the platform's Python/Django backend, then lead development of the C++ build and runtime images for processing and rendering CT imagery
- design GitHub Actions workflows that build the C++ images and test them on GPU runners
- architect a cross-region warm-standby disaster recovery footprint, defining the Terraform IaC patterns for network, compute, storage, and identity layers
- design asynchronous task-processing infrastructure for backend services, introducing managed message brokering and dedicated worker tiers to support scalable, long-running workloads
- develop the HTCondor cluster that schedules inference and rendering jobs onto auto-scaling GPU instance pools
- guide the evolution of the company's service-based architecture, partnering with engineering leaders to navigate organizational and technical trade-offs
- build GPU-enabled base AMIs with EC2 Image Builder, and establish cross-account, multi-region distribution patterns for AMIs and container images, decoupling build pipelines from deployment topology
- own multi-account cost management for over eighty environments serving six product development teams, balancing engineering velocity with budget accountability
- develop DICOM interoperability and performance-testing tools, including a cross-platform C-ECHO service class user and a Python-based load-testing harness for DICOM service class providers

Backend Application Development

Responsibilities:

- build Django applications for managing RabbitMQ message-broker configuration
- implement a distributed lock coordinating Django ORM database migrations, unblocking autoscaling, redundancy, and deployment process features that would otherwise have produced migration collisions — surfaced by collisions in the nightly `dev` environment, most often on bulk data migrations, where `RunPython` operations are not wrapped in a database transaction by default
- develop a continuous health-check monitor built on `django-health-check`, running its full set of built-in checks alongside custom checks for DICOM service availability (C-ECHO) and for external API availability via `requests`

DevOps Leadership

Responsibilities:

- own monthly release cadence across multiple coupled product repositories, coordinating cross-team delivery and the supporting regulatory documentation

- design and build internal CLI tooling for orchestrating multi-repository releases, consolidating configuration, and enabling developer self-service workflows
- author `fix-pr-title`, a TypeScript GitHub Action enforced as an org-wide required check that auto-corrects malformed Jira issue keys in PR titles, preserving the Jira–GitHub links that regulatory traceability and release-notes automation depend on
- author and maintain `dicom-echo`, an open-source, cross-platform C-ECHO service class user for verifying DICOM connectivity, written in Rust on dicom-rs and published to PyPI as a Python CLI and API via PyO3 and maturin
- democratize backend service development by delivering per-team containerized development environments, accelerating feature parallelism across the engineering organization
- lead adoption of agile delivery practices including backlog refinement, sprint retrospectives, and architectural decision records
- mentor engineers across teams through design reviews, pull request feedback, and pairing on platform-engineering tasks
- design and execute an AI-agent-orchestrated environment teardown workflow using isolated git worktrees, canary validation, and account-scoped safeguards, reducing cloud costs by roughly 30% without disrupting in-flight regulated work

Site Reliability & On-Call

Responsibilities:

- establish the company's on-call program, defining service-level indicators and objectives, runbook standards, and a blameless postmortem culture
- develop a TypeScript Slack app on the Deno Slack SDK that pages the on-call engineer via Datadog On-Call for each post in a dedicated support channel, attaching the message text and permalink and reacting with 💬 as feedback — giving Slack-only internal analysts a compliant escalation path where regulatory constraints ruled out paging through Slack directly
- design observability dashboards spanning deployment pipeline health, environment version tracking, and infrastructure performance
- lead adoption of application performance monitoring 📈 and software cataloging to clarify service ownership across the engineering organization
- partner with engineering teams to embed reliability practices into the regular development lifecycle

DevOps Engineer — Hometap

2021 November - 2023 September — Boston, MA (hybrid)

My position as Hometap's first devops engineer provided a unique opportunity to help guide the team through the challenges of its devops evolution. I was responsible for the design, implementation, and support of the company's cloud infrastructure, CI/CD pipelines, automation tooling, and application monitoring systems.

Full-Stack Software Developer — MORSE Corp

2020 August - 2021 November — Cambridge, MA (hybrid)

As a senior developer on a rapidly growing team, I was able to provide guidance and technical insight to younger developers. Through effective collaboration, troubleshooting, process development, and technical accomplishment, I established a reputation as a subject matter expert for Docker, Python, Terraform, AWS, `git`, GitLab, CI/CD, DevOps, and cloud-native web applications.

Software Engineering Consultant — Outdoorlink

2020 August - 2022 January — Boston, MA (remote)

I was the primary contributor to the development and maintenance of a distributed web application providing Django-based REST APIs and a React-based JavaScript frontend hosted in an AWS VPC with redundancy managed through Celery and AWS RDS for increased availability. The application was designed to manage scheduling, status, communications, and operations of an IoT fleet of utility power management devices utilizing cellular communication technologies for the control of more than 70,000 billboard structures in the US, Australia, and South America.

After relocating to Boston, MA, I retained a part-time consulting position at Outdoorlink.

Lead Software Engineer — Outdoorlink

2019 February - 2020 August — Huntsville, AL

As Outdoorlink's lead software engineer, I drove the migration of the company's IoT management platform from a legacy SOAP service to a modern Django-based REST API, and from on-premise servers to an AWS cloud deployment. I established the team's CI/CD pipelines, containerized workloads with Docker, and added error monitoring and database tuning to improve reliability and developer feedback cycles. I also partnered with electrical engineering to package MCU firmware and orchestrate over-the-air upgrades across the company's cellular IoT device fleet.

Engineer — IERUS Technologies

2016 October - 2019 February — Huntsville, AL

As an engineer at IERUS Technologies, I contributed to a variety of SBIR contracts for the Department of Defense and similar research initiatives. I also worked on-site at Raytheon for several subcontracts. My contributions included software development, radar processing/analysis, and modeling/simulations.

Embedded Systems Engineer — RMCI, Inc.

2012 August - 2016 October — Huntsville, AL

After interning with RMCI during my senior year of college, I grew into a full-time role as embedded systems engineer. I contributed to the development of XRDS™, a single-board computer system that measured vibration signals from helicopter drive train components to detect hardware faults.

Research Assistant — University of Alabama in Huntsville

2012 February - 2012 December — Huntsville, AL

I worked part-time as a research assistant at the Systems Management and Production (SMAP) Center, where I contributed to the development and operations of small unmanned aerial vehicles.

PASS Leader — University of Alabama in Huntsville

2010 August - 2012 December — Huntsville, AL

I lead group study sessions for students of all ability levels in the following courses: Differential and Integral Calculus; Engineering Mechanics: Statics; and Engineering Mechanics: Dynamics.

Education

The University of Alabama in Huntsville — *2009 - 2013*

Bachelor of Science in Engineering, Mechanical Engineering

GPA	4.00
Activities and societies	Tau Beta Pi, Pi Tau Sigma, AIAA
Graduation Status	Summa Cum Laude

Security+ Certification — *April 2021*

Issued by CompTIA.org