Brett Porter

CONTACT INFORMATION

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Principal Systems & Platform Engineer

Distributed Systems · Cloud Platforms · Kubernetes · Observability · AI Infrastructure

SUMMARY

I am a systems engineer at heart. I specialize in understanding complex technical systems end to end: how infrastructure, applications, networks, telemetry, automation, and engineering workflows interact, then finding where they can be made simpler, faster, safer, and more reliable.

Over 15+ years, that work has taken me from Linux, Oracle databases, and broadcast infrastructure into AWS and GCP platforms, distributed systems, Kubernetes, SRE, observability, platform engineering, and AI infrastructure. I am comfortable moving between architecture and implementation: designing a platform, debugging a production failure, writing the tooling, instrumenting the system, or learning an unfamiliar component when that is where the problem leads.

My strongest work happens in complicated environments where the problem is not neatly contained within one technology or team.

CORE DOMAINS

- **Systems & Platform Architecture:** Distributed systems, internal platforms, developer infrastructure, hybrid/cloud architecture, reliability engineering, platform operating models
- **Cloud & Kubernetes:** AWS, GCP, Amazon EKS, GKE, K3s, Rancher, Docker, Helm, Kustomize
- **Observability:** OpenTelemetry, Grafana Tempo, Loki, Mimir, Alloy, Prometheus, Jaeger, Datadog, Sentry, ELK
- **Infrastructure Engineering:** Terraform, Terragrunt, Atlantis, GitOps, CI/CD, policy-as-code, networking, security, secrets management
- **AI Infrastructure & Agent Systems:** LLM inference, vLLM, open-source models, GPU inference infrastructure, model serving, inference gateways, agent orchestration, tool-driven agents, autonomous engineering workflows, RAG, vector search, AI evaluation and observability
- **Software & Automation:** Golang, Python, Bash, TypeScript, Kubernetes operators, platform tooling, operational automation

SELECTED IMPACT

- Architected Kubernetes platforms supporting statewide education infrastructure across AWS, EKS, Rancher, and K3s environments.

- Built unified observability platforms that correlate metrics, logs, and distributed traces across Kubernetes, AWS, API gateways, and application services.
- Standardized CI/CD, GitOps, Terraform, and platform governance patterns across large service portfolios to improve deployment consistency and operational control.
- Reduced cloud spend through capacity planning, autoscaling, and infrastructure optimization while preserving reliability for production workloads.
- Designed and operated enterprise Kubernetes and cloud platforms for organizations including California Community Colleges, Wunderkind, Genentech, CNN, Prudential, Axial, and Vizrt.

PROFESSIONAL EXPERIENCE

California Community Colleges Technology Center — Lead Infrastructure Engineer (Contract)

January 2021 – Present | San Francisco, CA

- Architected and operated the platform engineering ecosystem supporting statewide education systems across AWS, EKS, Rancher, and K3s, with emphasis on reliability, security, and long-term operational scalability.
- Defined reusable platform standards, paved-road infrastructure patterns, and governance practices that improved deployment consistency, developer self-service, and platform maintainability across engineering teams.
- Architected a unified observability platform across Kubernetes and AWS, correlating metrics, logs, and distributed traces through OpenTelemetry and the Grafana stack to replace fragmented service-level debugging with end-to-end system visibility.
- Led OpenTelemetry adoption across Kubernetes workloads, API gateways, cloud-native applications, and managed AWS services.
- Built Terraform and Terragrunt frameworks for provisioning and managing AWS infrastructure across multiple accounts, environments, and private networks.
- Established Kubernetes policy-as-code with Kyverno for security, compliance, resource governance, and operational guardrails.
- Developed internal automation and operational tooling in Golang, Python, Bash, and Kubernetes operators to reduce manual platform administration.

Wunderkind — Platform / Infrastructure Engineer

January 2021 – August 2025 | New York, NY

- Managed GCP and GKE infrastructure for large-scale, low-latency applications spanning Dataflow, Cloud Functions, APIs, and worker systems.
- Built standardized GitLab CI/CD templates for Golang, Node.js, Terraform, Firebase, Dataflow, and Cloud Functions, improving delivery consistency across 50+ services.
- Engineered custom autoscaling mechanisms using Prometheus and GCP metrics to align API and worker capacity with production demand.
- Led proactive capacity planning and infrastructure optimization that reduced annual cloud spend by approximately 30% while maintaining production reliability.
- Maintained an Istio multicluster service mesh with enforced mTLS, EnvoyFilters, and fine-grained AuthorizationPolicies.
- Built AI-assisted infrastructure tooling, including a RAG configuration generator using open-source LLMs and Qdrant for production automation workflows.

Genentech — Tech Lead (Contract)

January 2021 – January 2022 | San Francisco, CA

- Architected Kubernetes infrastructure for the Mediledger blockchain platform in a secure, on-premises environment with high availability and regulatory constraints.
- Automated development, test, and production cluster provisioning with Kubespray and Argo Workflows, reducing environment setup time and operational drift.
- Implemented GitOps delivery with ArgoCD, Kustomize, and Helm for version-controlled, repeatable application rollouts.
- Added Prometheus, Loki, and Velero-based monitoring, logging, backup, and restore capabilities to improve recovery confidence and production visibility.
- Mentored engineers in Linux administration, Kubernetes operations, and infrastructure automation.

Code & Theory — Senior Site Reliability Engineer (Contract)

August 2019 – December 2020 | New York, NY

- Designed and maintained AWS infrastructure for enterprise clients including CNN and Prudential (PGIM), balancing scalability, performance, security, and cost control.
- Built infrastructure and contributed application code for CNN Datacloud and Election Center APIs using Apollo GraphQL, Neo4j, Airflow, Redis, Elasticsearch, Postgres, Lambda, Cognito, Datadog, and Fastly.
- Supported CNN's 2020 MagicWall elections platform with Redis Sentinel, AWS MSK, Python microservices, and TimescaleDB for real-time election workflows.
- Integrated HashiCorp Vault with Kubernetes admission webhooks and Kube2IAM to improve secrets handling and AWS role management across clusters.
- Automated deployment workflows with Terraform, Jenkins, Drone, Helm, and CloudFormation.

Axial — Senior DevOps Engineer

August 2015 – November 2019 | New York, NY

- Modernized AWS infrastructure by migrating legacy Classic environments to VPC-based architectures supporting Kafka, RDS, Redshift, mail services, and application workloads.
- Led containerization and Kubernetes adoption using Docker, Rook/Ceph, RBAC, network policies, Helm, and Jenkins.
- Built observability systems with Prometheus, InfluxDB, Grafana, Sentry, and Jaeger, including custom Prometheus exporters and alerting logic.
- Implemented Terraform, HashiCorp Vault, and Atlantis workflows to make infrastructure changes reproducible, auditable, and reviewable.
- Developed platform automation in Python and Golang, including microservices, a Slack operations bot, and a local Kubernetes development framework using the Go client.

Vizrt — Support Engineer

October 2013 – August 2015 | New York, NY

- Supported mission-critical broadcast infrastructure for NBC Universal, Bloomberg, CBS, and The Weather Channel in 24/7 production environments.
- Installed and maintained Oracle Database 10g/11g environments, Oracle Database Appliance, RAC, VMware ESXi, RHEL, Windows, and Apache systems.
- Automated replication, failover, monitoring, patching, and broadcast workflow tasks with Bash, SymmetricDS, DBVisit Standby, PHP, and VBScript.

SELECTED SYSTEMS & INDEPENDENT ENGINEERING

AI Infrastructure & Agent Systems

- Built local and cloud AI infrastructure experiments around open-source models, vLLM-style inference patterns, GPU-aware serving, model routing, agent execution, evaluation loops, and observability for AI systems.
- Developed agentic engineering workflows that connect LLM reasoning, tool execution, verification, and operational controls for infrastructure and software delivery tasks.

Product & Platform Systems

- Co-founded Simply DevOps LLC, delivering cloud infrastructure, CI/CD, Kubernetes, and automation work for clients including Genentech, Code & Theory, Axial, Hello Alfred, IQVIA, and California Community Colleges.
- Built full-stack product platforms combining application code, infrastructure, deployment, operations, AI-assisted workflows, and payment or data systems, demonstrating end-to-end ownership from idea through production.

EDUCATION

Digital Media Arts College | Boca Raton, FL — 2005–2009 Bachelor of Fine Arts (BFA) — Studied computer animation and visual effects. During these four years, I started teaching myself how to code, which led me to where I am today.