Benjamin Banwart

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Professional Summary

Platform and software engineer who built and runs the production Kubernetes platform for Miller's Professional Imaging and Mpix, and owns the internal application suite its customer service, order entry, administration, and production teams use every day. Replaced legacy systems at every layer of the company's stack, from desktop applications and Windows servers to clusters, logging, and release pipelines, and cut VMware license cost by retiring the old clusters. Built the central logging, alerting, and production metrics, so failures reach the right people and press, shipping, and product teams read their own numbers. Works across the stack, from cluster networking to Angular and .NET, and is the engineering team's early adopter of AI coding agents.

Skills

Platform and cloud: Kubernetes (RKE2, Rancher), Cilium, Gateway API (agentgateway), ingress-nginx, HAProxy, MetalLB, cert-manager, OpenEBS, Helm, Kustomize, Docker, BuildKit, AWS, Azure

GitOps and CI/CD: ArgoCD, GitHub Actions, Actions Runner Controller, release-please, GO Feature Flag, Ansible, Bash

Observability: Prometheus, Alertmanager, Thanos, Grafana, Elasticsearch, Kibana, Fluent Bit, Logging Operator, Serilog

Security and identity: 1Password Connect, External Secrets Operator, Dex, OIDC with Azure AD, NetworkPolicy, CVE patching

Languages and frameworks: C#, .NET, ASP.NET Core, TypeScript, Angular, Angular Material, JavaScript, React, Python, Flask, SQL, HTML, CSS/SCSS

Data and messaging: SQL Server, PostgreSQL, MongoDB, Redis, Kafka (Strimzi)

AI-assisted engineering: Claude Code, custom agents and agent skills, GitHub Copilot, Antigravity, Grok Bot

Professional Experience

Miller's Professional Imaging / Mpix, Pittsburg, KS

Platform Engineer | Software Engineer, June 2023–Present

Kubernetes platform and infrastructure

- Designed and built the company's production Kubernetes platform with one other engineer: multiple RKE2 clusters on Rancher with Cilium networking. Provisioned the nodes, scripted the installs and maintenance, and benchmarked network and disk throughput against database workloads before go-live.
- Retired the legacy clusters and cut VMware license cost by migrating every workload to the new platform across 2025 and 2026, including the finance and Business Central workflows, Kafka tooling, Dex, Redis, and the CI runners.
- Moved the Mpix.com production storefront onto a new public-facing cluster, ArgoCD, and CI/CD pipeline, giving it the platform's observability and alerting and a faster, simpler release process. Prepared the cluster first: base OS image, Cilium baseline testing, config sync, and public IP and DNS work with the network team.
- Leading the move of all cluster traffic from ingress-nginx, now deprecated and unsupported, to Gateway API on agentgateway, which also brings AI tooling and features that ingress-nginx lacked. Evaluated gateway controllers, load-tested the replacement, and wrote the network policies that separate public from internal traffic. Applications are moving over in batches.
- Stood up paired ArgoCD instances, one per site, each managing the other, and moved all applications onto them. Maintain the shared Helm chart that in-house services deploy with.
- Added cluster backups to S3-compatible storage and set up layered cluster access through OIDC and Active Directory groups.

AI-assisted engineering

- Introduced Claude at Miller's and drove its adoption, from two engineers to the full engineering team and now to early adopters on teams across the company. Demonstrated agent workflows to the team at the CTO's request.
- Built agent skills and a DevOps agent that scaffold a new cluster application from a short request, and used them to migrate the platform applications between ArgoCD instances.
- Prepared the company's repositories and services for agents: wrote the repository instructions agents work from and, with another engineer, set up the 1Password vault that holds shared agent credentials for DevOps services.
- Used coding agents to trace recurring server restarts in the internal tooling suite to blocking calls and HttpClient misuse, and to run its server modernization and Kubernetes migration, with every change reviewed before merge.

- Evaluate AI tooling as it ships, for capability and cost: Claude Cowork on order cancellation and email summaries, and Gemini CLI. Set up the on-premises AI machine that runs image-processing and classification models.

CI/CD and developer enablement

- Designed trunk-based development and release automation for the Mpix.com team and internal projects: release-please versioning, approval gates per component, lint and test checks on every pull request, and feature flags across all environments. Developers and teams now share one simpler, more automated release process.
- Moved internal projects from Windows IIS servers to Kubernetes and onto the same automated release pipeline.
- Built the self-hosted GitHub Actions runner fleet on Kubernetes with Actions Runner Controller, replaced Docker-daemon image builds with BuildKit, and automated weekly runner image updates and token rotation so upstream deprecations no longer halt deployments.
- Co-wrote the Kubernetes onboarding course for new engineers and the guide for adding tools to the tooling suite.

Observability and reliability

- Built the Grafana dashboards as code and the metrics service behind them, which collects lab data and serves it through Elasticsearch. Teams now read live queue and sales numbers from their own dashboards instead of requesting reports.
- Built the central logging pipeline (Logging Operator and Fluent Bit into Elasticsearch data streams, with Kibana dashboards) and moved the main applications onto it from text-file logs, NLog, InfluxDB, and a custom in-house logger.
- Established the first alerting standard, where each application had only emailed its exceptions to developers: Prometheus alert rules and Alertmanager routing for the clusters, from node health and certificate expiry to ingress error rates and data services, delivered to Slack and email by severity.
- As a primary responder for production incidents, traced failing certificate renewals to Let's Encrypt rate limits and staggered renewals across clusters.

Security

- Removed plaintext connection strings and credentials from shared application configuration and moved services, CronJobs, and workflow projects to secrets injected from 1Password.
- Patched Linux kernel CVEs on every cluster node, fixed SQL injection paths in the internal tooling suite, audited for exposure after the Shai-Hulud npm supply-chain attack, and moved the suite to pnpm with package-age thresholds.

Internal tooling suite (Angular, ASP.NET Core, SQL Server)

- Primary developer and owner of the internal tooling suite, the web platform that replaces the legacy desktop applications for customer service, order entry, remakes, products, promotions, film, and production-floor tools.
- Cut shipping cost by stopping label purchases for film orders that were marked for destruction and never shipped. Delivered the Mpix.com film return-or-destroy option across product, order entry, and storefront systems.
- Worked with the team to build fraud management for Miller's and Mpix accounts. Built self-service tools (payment retry reset, order re-routing, failed-edit recovery, film order lookup) that replaced scripts a developer used to run by hand for each request.
- Built the order entry and edit engine used by every brand entity, the redesigned order Inquiry tool (invoicing, cancellation, refund lookup), remake entry with accountability tracking, and a rebuilt holds and alerts system.
- Replaced the legacy Products system, an ASP.NET application on IIS whose repository had been archived, with a rebuild in the Angular tooling suite that adds product and partner duplication.
- Rewrote the WPF Film Entry desktop application as a web tool in the suite, with ZPL label printing driven from the browser, and replaced pre-printed order labels with order IDs generated at entry.

Hairbow Center, Fort Scott, KS

Software Developer | Product Listing Specialist, April 2014–June 2023

- Started in warehouse production and inventory, advanced to managing the company's marketplace listings, and then moved into software development.
- Developed Jinja templates for ERP production paperwork and reporting, advised on UI/UX for internal and customer-facing systems, and resolved ERP inventory discrepancies affecting production and fulfillment.
- Managed product listings on Etsy and kept SKU-based product data accurate.

Projects

HQ, AI-managed work ledger: A Node.js CLI and Claude Code plugin that journals coding sessions, logs work and hours against GitHub Issues, and produces standup, hours, and R&D reports.

Education

Kansas State University, Manhattan, KS (Remote) | Full Stack Software Development Professional Certificate