

VIDHART BHATIA

BACKEND & INFRASTRUCTURE ENGINEER

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SUMMARY

Backend and infrastructure engineer with **six years at Microsoft**, most recently owning platform infrastructure for **116 Xbox services across ~45 production AKS clusters** (~22K pods), sustaining up to **~1M requests per second**. Work spans networking and ingress, security and identity, observability and reliability, plus AI-assisted developer tools and workflows. Earlier, built C#/.NET microservices that helped launch xHome / Remote Play and other Xbox Cloud Gaming services.

WORK EXPERIENCE

Microsoft, Xbox Platform Services — Software Engineer II | Redmond, WA | Sep 2022 – Present

- Owned core infrastructure for Xbox's shared microservices platform — **116 services on ~45 production AKS clusters** (~22K pods), up to **~1M requests/second globally**, with no platform-attributable availability incidents across major game launches; primary owner of the XPLAT cluster fleet (17+ live services).
- Shipped **defense-in-depth ingress** on Azure (DDoS Protection L3/L4; App Gateway WAF + Bot Manager + custom L7 rate limits; NGINX mTLS/routing); WAF rate-limit rules contained a known L7 DDoS attack and **preserved backend stability**.
- Led the platform-wide **Gateway API / Istio migration** design and early implementation, authoring the spec and sequencing the rollout across dozens of service edge cases.
- Owned the platform's **observability stack** — Grafana (migrations, access, upgrades), Managed Prometheus, and the FluentBit-to-Geneva log pipeline — and architected its migration into Microsoft's hardened PME tenant.
- Led "Protect the Admin" security overhaul: replaced standing user Azure access with **just-in-time PIM and RBAC** across 15+ subscriptions, and migrated **30+ secrets and service connections** to managed/federated identity with no downtime.
- Led cost and capacity analyses that identified ~\$25K–\$60K/year in WAF cost-reduction opportunities and **~\$69K/year** in Kubernetes capacity and decommissioning opportunities.
- Prototyped an **on-call DRI copilot** that triages incidents against runbooks and returns confidence-scored verdicts backed by an evidence trail, with safety gates and **human sign-off** before any action.

Microsoft, Xbox Cloud Gaming (xCloud) — Software Engineer | Redmond, WA | July 2020 – Sep 2022

- Built C#/.NET **session-management and provisioning microservices** for Xbox console streaming and shipped xHome (Remote Play) to millions of monthly active users. Telemetry pinpointed the top reconnect failure modes; reconnect-handling and integration-test fixes then cut reconnect failures **~15%** while provisioning success held above 90%.
- Built a shared **C# logging library** on ILogger with PII redaction and enforced data contracts, adopted across the service fleet; re-architected logging into a FluentBit forwarder-aggregator model across ~878 pods, relieving bottlenecks and reducing overhead by **~220 CPU cores** (~55 VM-node equivalents).
- Co-owned readiness for the platform's **multi-region core migration** (Americas, Europe, Asia-Pacific), covering logging, data-pipeline, and integration-test readiness, and took on more as senior engineers rotated off.
- Mentored Explore interns and ran the team's engineering AMA series: 6 sessions, 361+ attendees, with a 4.6/5 average rating.

Microsoft, Outlook — Software Engineering Intern | Redmond, WA | Summer 2019

- Implemented calendar features in React and Redux for the Windows Calendar refresh.

Bungie, Destiny 2 Investment Tools — Software Engineering Intern | Bellevue, WA | Summer 2018

- Built designer tooling for item categorization in Destiny 2; shipped bug fixes to millions of players in a **large C++/C# codebase**.

PROJECTS & OPEN SOURCE

copilot-brag-sheet: Copilot CLI extension and typed stdio **MCP server** (npm; github.com/microsoft/copilot-brag-sheet). Turns Copilot session and tool events into structured work-impact records with atomic persistence, PID locks, and orphan recovery; companion skill accepted into **Awesome Copilot**.

Vids in One Frame: vidsinoneframe.com · a photography journal with ML retrieval over 1,544 images, fusing Azure Vision, SigLIP, DINOv2, and Gemini embeddings with Reciprocal Rank Fusion for **natural-language search**. A side project I built with AI assistance, owning product and curation.

Upstream contributions: [CNCF Flagger](#) — KEDA support + CRD fix; [React Native for Windows](#) — XAML context menus.

SKILLS

Languages & Backend: C#/.NET, Go, Python, TypeScript, microservices, API design

Cloud & Platform: Azure, Kubernetes (AKS), Terraform, Helm, ingress & traffic management (Istio, Gateway API, NGINX)

Reliability & Security: Grafana, Prometheus, Azure Monitor, incident response, PIM/RBAC, Managed/Federated Identity, DDoS mitigation, mTLS

AI & Developer Tools: MCP servers, LLM tool-calling workflows, embeddings & semantic retrieval, AI-assisted development

EDUCATION

Carnegie Mellon University — B.S. in Computer Science; Minors in Game Design & Systems Engineering. GPA 3.8/4.

More work: github.com/vidhartbhatia