Liam Wood

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EXPERIENCE

Microsoft *July 2022 – Present*

Software Engineer II — Platform Infrastructure (promoted twice in 3 years)

- Own design and end-to-end reliability of distributed event-processing infrastructure handling **6B+ events/month** across OneDrive and SharePoint, spanning dozens of interdependent services on Linux-hosted **AKS clusters**; define and enforce **SLOs and error budgets** with SRE teams.
- Architected **KEDA-driven autoscaling** tied to real-time queue depth and traffic patterns, eliminating over-provisioning waste and reducing tail latency (**$500k–$750k annual cost savings**).
- Owned **CI/CD pipelines** (Azure DevOps, Git) and progressive rollout tooling, improving release cadence from 6-week cycles to **weekly deployments** with integrated smoke testing and automated rollback.
- Led full **AKS migration** — authored **Terraform** modules for multi-region cluster provisioning, **Helm**-managed workloads, node pool autoscaling, and pod disruption budgets; rebuilt infra-as-code pipelines for safe, repeatable deploys at scale.
- Designed **multi-region failover** with Azure FrontDoor (anycast routing, TLS offload, WAF policies) and Traffic Manager; maintained **99.99% availability** under continuous global load with automated BCDR runbooks and on-call rotation.
- Built **end-to-end observability** stack (Azure Monitor, Grafana, OpenTelemetry instrumentation); defined alerting thresholds, distributed tracing, and incident dashboards for a zero-downtime production system.

Visa *October 2020 – July 2022*

Senior Software Engineer — Clearing & Settlement Infrastructure

- Designed and implemented **state-machine–driven settlement engine components** in Python and C++, processing **trillions in annual transaction volume** across distributed financial infrastructure.
- Engineered distributed systems requiring **fault-tolerant, exactly-once processing** under concurrent load; built early real-time transaction observability pipelines.
- Operated within a strict **Linux-based production environment**; diagnosed and resolved complex distributed failures with direct financial impact under time pressure.

Digital Worlds Institute — University of Florida *August 2019 – February 2020*

Software Developer

- Sole developer for a browser-based AR platform; built a **Node.js backend** with Redis pub/sub managing **100+ concurrent WebSocket connections** and real-time distributed state synchronization.

EDUCATION

University of Florida *August 2018 – May 2022*

B.S. Computer Science

Vice President, GatorVR — led technical workshops and mentored students in VR/AR development and CS fundamentals.

SKILLS

Languages	C++, Python, C#/.NET, Node.js, JavaScript
Infrastructure	Linux (AKS/bare-metal), Kubernetes, KEDA, Terraform, Helm, Azure FrontDoor, Azure DevOps, BCDR Planning
Distributed Systems	High-scale event processing (6B+ events/month), multi-region failover, fault-tolerant state machines, queue-based scheduling
CI/CD & Tooling	Azure DevOps, Git, progressive rollout, automated rollback, smoke testing, integration & regression testing
Observability	OpenTelemetry, Azure Monitor, Grafana, distributed tracing, SLO/error-budget design, alerting, on-call, incident response