Liam Wood

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EXPERIENCE

Visa *October 2020 – July 2022*
Senior Software Engineer — Clearing & Settlement Infrastructure

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

Microsoft *July 2022 – Present*
Software Engineer II — Platform Infrastructure (promoted twice in 3 years)

- Own design and end-to-end reliability of distributed notification infrastructure processing **6B+ events/month** across OneDrive and SharePoint on Linux-hosted AKS clusters.
- Designed **multi-region failover** architecture; maintained **99.99% availability** under continuous global load with automated BCDR runbooks and on-call rotation.
- Architected **KEDA-driven autoscaling** tied to real-time queue depth; reduced tail latency and eliminated over-provisioning ($500k–$750k annual savings).
- Led full **AKS migration** — authored **Terraform** modules for cluster provisioning and **Helm**-managed workload deployment; rebuilt infra-as-code pipelines for safe, repeatable deploys at scale.
- Built observability stack (Azure Monitor, Grafana, OpenTelemetry); defined SLOs, alerting thresholds, distributed tracing, and runbooks with SRE teams.

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

- Built **C++ and Python** systems infrastructure; developed concurrent data pipelines and low-level tooling in a Linux production environment.

EDUCATION

University of Florida *August 2018 – May 2022*
B.S. Computer Science

SKILLS

Languages	**C++**, Python, C#/.NET, Node.js, JavaScript
Distributed Systems	Fault-tolerant state machines, exactly-once processing, multi-region failover, high-scale event processing, queue-based scheduling
Infrastructure	Linux (AKS/bare-metal), Kubernetes, KEDA, Terraform, Helm
Correctness & Testing	Unit & integration testing, concurrent transaction correctness, edge-case coverage
Observability	OpenTelemetry, Azure Monitor, Grafana, SLO/error-budget design, on-call, incident response