HAO WANG

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Summary

Staff Engineer with extensive experience building and operating distributed systems at internet scale. Currently leading Kubernetes migration at Walmart while building platform services that handle millions of requests daily. Deep expertise in containerized platforms, multi-region orchestration, and operational excellence for Tier0 services. Strong platform engineering background where other engineers are my customers - I build the infrastructure that makes their lives easier.

Strong in: Kubernetes/container platforms, distributed systems, platform engineering, Go, operational reliability

Skills

Container Platforms: Kubernetes (WCNP), Docker, container orchestration, multi-region deployments
Languages: Go, Python, Java, JavaScript/TypeScript, SQL
Infrastructure: Azure, AWS, Kubernetes, microservices, service mesh patterns
Data Systems: Kafka, Cassandra, Elasticsearch, SQL Server, MongoDB, Memcached
Monitoring: Splunk, Grafana, distributed tracing, real-time alerting, SLA monitoring

Experience

Staff Technical Expert

Walmart Global Tech | Herndon, VA | March 2020 – Present

Building critical platform services and leading infrastructure modernization for Walmart's e-commerce platform. My focus is making reliable, scalable infrastructure that other engineers can depend on.

Kubernetes & Container Platform Work:

WCNP Migration Lead — Leading Kubernetes adoption at Walmart

- Leading containerization of multiple production services to Walmart Cloud Native Platform (Kubernetes)
- Architecting migration strategy: assessment → containerization → deployment → monitoring
- Working through real challenges: stateful services, service discovery, secrets management, observability
- Building tooling and runbooks to make container deployment self-service for other teams
- This is hands-on work - I'm writing Dockerfiles, K8s manifests, Helm charts, debugging pod issues

Platform Engineering (Engineers are My Customers):

Team Portal & Workflow Manager — Internal platform serving 50+ engineers

- React.js frontend, Golang/Python backend
- Platform philosophy: engineers write logic, platform handles infrastructure
- Self-service workflows for deployments, data access, job scheduling
- Centralized secrets management, unified logging, automated alerting
- Cut time-to-production by 60% - this is the kind of "set it and forget it" platform Netflix wants
- Engineers don't need to know infrastructure details - platform abstracts complexity

Event Automation Platform — Deployment orchestration system

- Multi-region rollout orchestration across 4 markets
- Features: approval workflows, staged deployments, instant rollback, scheduled runs
- Built "mission control" dashboard for deployment observability
- Think of it like a simple platform for automated deployments with governance

Critical Tier0 Services at Scale:

Distributed Feature Aggregation System

- Processes millions of events/second with sub-second latency (p99 ~100ms)
- Stack: Golang microservices, Kafka, Memcache, SQL Server
- Horizontally scalable - can add nodes to handle 10x traffic
- 99.99% uptime SLA - this is Tier0 reliability for Walmart e-commerce
- Full observability: real-time dashboards, automated alerts, distributed tracing

Multi-Signal Scoring Pipeline

- Event-driven architecture handling Black Friday traffic (10x normal load)
- Stack: Golang, Kafka event backbone, Memcache, REST APIs
- Real-time processing with strict latency requirements
- Multi-region deployment with failover capabilities

Account Risk API — Low-latency serving layer

- Node.js microservice serving millions of requests/day
- p99 latency under 50ms, 99.99% uptime
- Event-driven with Kafka for async processing
- Full observability and alerting

Distributed Search Platform (ELSA)

- Elasticsearch cluster for massive datasets
- Stack: Golang, Elasticsearch, SQL Server, React.js
- Similar capacity planning and performance optimization as container orchestration

Operational Excellence:

- On-call rotation - debug production issues, write post-mortems, automate fixes

- Built comprehensive monitoring for all services: metrics, logs, traces, alerts
- All my systems run at 99.99% uptime because reliability is built in from day one
- Mentor 8 engineers, run design reviews, set technical standards

Principal Software Engineer / Engineering Lead

Law School Admission Council (LSAC) | Newtown, PA | November 1996 – March 2020

Built distributed systems and production platforms over two decades.

Distributed Test Platform — Got a patent for this (US 10,078,968)

- Coordinated thousands of simultaneous users across iOS, Android, Windows
- Real-time state synchronization at scale
- Similar orchestration challenges to container platforms

SSO Platform — Identity system with Azure AD B2C

- Custom auth framework with distributed microservices
- Multi-region deployment for reliability

Data Sync Services — Real-time integration pipelines

- Dynamics 365, Oracle, SQL Server, Salesforce
- CDC patterns, event-driven architecture

ML Production Systems — Early ML infrastructure

- Recommendation engine with microservices architecture
- OCR pipeline for document processing at scale

IT Consultant

Fortune 500 Companies | Early Career

Enterprise infrastructure and distributed systems across multiple industries.

Education

Master of Science, Computer Science
Saint Joseph's University — Philadelphia, PA

Patent

System and Method for Electronic Test Delivery
US Patent 10,078,968 | View on Google Patents

Distributed coordination system for real-time delivery at scale - foundational work in reliable distributed systems.

Why This Role?

I'm in the middle of leading Kubernetes adoption at Walmart, building the platform thinking and operational rigor this role needs. I've built internal platforms where engineers are my customers - they focus on features, I handle infrastructure reliability. My services run at 99.99% uptime because I design for failure and build observability into every layer.

What I bring:

- Active Kubernetes migration experience (hands-on, right now)
- Platform engineering - built self-service platforms engineers love
- Tier0 operational excellence - I know what it takes to keep critical services running
- Distributed systems at internet scale
- Cross-functional leadership - I can drive alignment across teams

What I'm excited to learn:

- Netflix's container platform at truly massive scale (millions of containers)
- Hybrid cloud/on-prem orchestration challenges
- Managing hundreds of millions in compute capacity
- Netflix's specific tooling and operational practices

I'm looking for fully remote Staff/Senior roles. Compensation target around $300K-500K total comp.