HAO WANG

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Summary

Senior Software Engineer with extensive experience building system orchestration platforms and integrating AI/LLM capabilities into production systems. Top 2% Cursor AI user pioneering AI-assisted development at Walmart. Deep expertise in building platforms that coordinate multiple systems to solve customer problems - exactly what AI agents need. Strong track record of taking ownership in ambiguous environments and leading teams through unknowns.

Strong in: Python, Go, AI/LLM integration, system orchestration, AWS, Kubernetes, React

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Skills

Languages: Python, Go, Java, JavaScript/TypeScript, SQL
AI/ML: LLM APIs (OpenAI, Claude), AI-assisted development, Cursor AI (top 2%), prompt engineering, conversational interfaces
Backend: AWS, Kubernetes, microservices, REST APIs, event-driven architectures
Data Systems: Kafka, SQL Server, MongoDB, Elasticsearch, Memcached
Frontend: React.js, modern web development
Monitoring: Splunk, Grafana, distributed tracing, real-time alerting

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Experience

Staff Technical Expert

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

Building platforms that orchestrate multiple systems to solve problems at scale. Pioneering AI/LLM adoption across the team while leading technical strategy and mentoring engineers.

AI/LLM Integration & Innovation:

AI-Assisted Development Pioneer — Top 2% Cursor AI user globally

- First on team to adopt AI-assisted development, achieving 40% productivity increase
- Integrated LLM APIs (OpenAI, Claude) into internal tooling for automated analysis

- Built AI-powered report generation reducing manual work by 60%

- Evangelized AI adoption across engineering organization

- Mentored engineers on prompt engineering and AI workflows

- This experience prepared me to think about how AI agents orchestrate systems

System Orchestration Platforms (Core AI Agent Pattern):

Workflow Manager & Team Portal — Platform orchestrating 10+ internal systems

- React.js frontend, Python/Go backend serving 50+ engineers

- Orchestrates: data access, job scheduling, secrets management, deployment pipelines

- **This is the AI agent pattern:** coordinate multiple systems to solve user problems

- Self-service interface abstracting complexity - users state intent, platform figures out execution

- Reduced time-to-production by 60% through intelligent orchestration

- Built conversational-style UI guiding users through complex workflows

Event Automation Platform — Multi-system orchestration engine

- Go, GraphQL, React.js, REST APIs, Slack integration

- Orchestrates deployments across 4 regions, multiple services, various approval systems

- **AI agent parallel:** takes high-level intent ("deploy to production"), orchestrates all necessary steps

- Auto-pilot mode for scheduled operations

- Real-time status updates and notifications (conversational feedback loop)

- Handles 100+ orchestrated workflows per week

Backend Systems at Scale:

Real-Time Data Pipeline — Event-driven microservices

- Python/Go services processing millions of events/second

- AWS infrastructure, Kafka messaging, REST APIs

- 99.99% uptime SLA - built for reliability

- Comprehensive monitoring and alerting

Account Risk API — Low-latency microservice

- Node.js/Python API serving real-time decisions

- Sub-50ms p99 latency, millions of requests daily

- Event-driven architecture with Kafka backbone

- Experience building customer-facing APIs

Multi-Signal Scoring System — Coordinating multiple data sources

- Orchestrates external APIs (MaxMind, Spur) and internal services

- Real-time feature aggregation from diverse sources

- **Similar to AI agents:** gather signals from multiple systems, make decision, take action

- Handles Black Friday traffic (10x normal) without issues

Infrastructure & DevOps:

Kubernetes Migration (WCNP) — Leading containerization effort

- Migrating services to Kubernetes, building deployment automation

- Docker, K8s, Helm charts, monitoring

- Building self-service platform for container deployments

Leadership & Team Development:

- Mentor 8 engineers on technical skills and AI-assisted workflows

- Run design reviews, set coding standards, drive technical direction

- Lead cross-functional initiatives across security, product, and platform teams

- On-call rotation: incident response, post-mortems, continuous improvement

- Built culture of ownership and quality through leading by example

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Principal Software Engineer / Engineering Lead

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

Built production systems ranging from ML applications to distributed platforms.

ML/AI Production Systems:

Recommendation Engine — Personalized matching system

- Python, Pandas, collaborative filtering

- Microservices architecture for serving recommendations

- Early experience with ML systems in production

OCR Pipeline — Document intelligence system

- Python, Tesseract, computer vision

- Production ML pipeline for document processing

Platform Systems:

Digital LSAT Platform — Distributed coordination system (US Patent 10,078,968)

- Coordinated thousands of simultaneous users across platforms

- Real-time orchestration at scale

SSO Platform — Identity system with Azure AD B2C

- Microservices, REST APIs, user behavior analytics

Data Sync Services — Real-time integration pipelines

- Orchestrated data flow across Dynamics 365, Oracle, SQL Server, Salesforce

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IT Consultant

Fortune 500 Companies | Early Career

Enterprise software development 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

Why Affirm AI Agents?

I've spent the last 4 years building platforms that orchestrate multiple systems to solve problems - exactly what AI agents do. I'm a top 2% AI adopter who's integrated LLMs into production tools. I thrive in ambiguous, newly formed teams where ownership and execution matter most. This role combines my system orchestration expertise with my AI adoption journey - it's exactly where I want to go next.

What I bring:

- Proven AI/LLM integration experience in production

- Deep system orchestration skills (coordinating multiple systems to solve problems)

- Backend expertise: Python, AWS, Kubernetes, microservices at scale

- Frontend skills: React.js for building user interfaces

- Leadership in ambiguous environments - I've launched new initiatives from scratch

- Mentorship and team development experience

Compensation target: $210K-$240K (top of range for CA/WA/NY/NJ/CT)