

Jack Su

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Senior Software Engineering Leader | Distributed Systems, AI/ML & Identity Platforms

Results-driven software engineering leader with deep expertise building and scaling high-volume distributed systems, AI-powered platforms, and secure identity infrastructure across Meta, Amazon, Deutsche Bank, Fidelity Investments, and Standard and Poor's. Proven track record delivering resilient, privacy-first solutions supporting **100M+ users, 100K TPS environments, and \$50B in monthly financial volume**. Combines hands-on strength in cloud architecture, machine learning integration, and zero-trust security to modernize platforms, improve customer outcomes, and drive measurable business impact.

SKILLS

Architectures:

Scalable Microservices, Agentic AI (Skills, MCP, RAG, Vector DB), AWS (EKS, ECS, S3, DynamoDB), Kubernetes, Container Orchestration.

ML Engineering & AI:

CNNs (Computer Vision), Random Forest (Predictive Analytics), LLMs (Agentic AI), Scikit-Learn, PyTorch, Keras, and NLP Recommendation Engines.

Expertise:

Core Java, Python, TypeScript, JavaScript, Privacy-First Engineering, Spring framework, Performance Profiling (JProbe).

EXPERIENCE

Meta, Bellevue, WA | **Senior Software Engineer** | 07/2019 – 03/2026

Identity & Wearables Infrastructure: Served as a core developer on the team that implemented Meta's AI and Wearables identity infrastructure, ensuring secure authentication for a global user base of 100M+.

- **Designed** core authentication systems for Meta AI, Quest, and Ray-Ban smart glasses that established a unified onboarding framework.
- **Orchestrated** the integration of Facebook SSO across the wearables ecosystem, reducing registration friction and driving a 30% lift in cross-platform device activation.
- **Directed** the migration of the Meta Quest authentication app from WebView to an OS-native implementation that significantly hardened security and performance.

Growth & Recovery:

- **Refined** the Meta AI registration funnel, achieving a 10% increase in success rates for first-time users.
- **Developed** an OTP-based account recovery solution that boosted restoration success rates by 50%.

Amazon, Seattle, WA | **Senior Software Engineer** | 03/2015 – 06/2019

Cloud Infrastructure & Scale:

- **Built** high-scale cloud services and distributed data pipelines for Amazon Photos, supporting 100M+ Prime users and peak loads of 100K requests per second.
- **Automated** intelligent photo organization by integrating facial recognition models on EKS, reducing manual tagging overhead for the global user base.
- **Modernized** CI/CD pipelines using internal deployment infrastructure, accelerating release velocity by 30% while maintaining 99.99% availability.

Data Engineering & ML Analytics:

- **Fortified** the scalability of predictive analytics pipelines, expanding product coverage by 5% for Ads ML models and increasing data reliability.
- **Developed** NLP-driven recommendation engines delivering critical predictive metrics and top-line insights for senior leadership.
- **Instituted** AI-powered home monitoring solutions that established new internal benchmarks for predictive accuracy and real-time model performance.

Deutsche Bank, Cary, NC | AVP Software Developer | 09/2013 – 02/2015

- **Re-architected** mission-critical trading and analytics infrastructure, managing high-concurrency systems for \$50B in monthly global equity volume.
- **Formalized** the modernization of dbCAT, a 10 TB analytics powerhouse, ensuring 99.9% high availability for global stakeholders.
- **Championed** the implementation of robust data contracts for 200+ upstream systems, eliminating cross-system inconsistencies and improving data reliability by 40%.
- **Reinforced** the data ecosystem against upstream volatility by designing standardized integration patterns that reduced Recovery Time Objectives (RTO).
- **Developed** high-concurrency systems capable of processing millions of transactions daily with low-latency execution across diverse global markets.

SAS Institute, Cary, NC | Senior Software Developer | 10/2009 – 09/2013

- **Designed** a centralized workflow administration interface that enhanced system transparency and empowered administrators to manually intervene and unblock stalled processes, reducing user downtime by 20%+.
- **Optimized** the Java-based architecture for multi-tenant deployments, achieving a **25% improvement** in resource utilization while maintaining 99.99% reliability for mission-critical enterprise workloads.

Fidelity Investments, Cary, NC | Senior Software Engineer | 08/2004 – 10/2009

- **Engineered** mission-critical authentication and payroll systems processing 10M+ monthly transactions with 99.999% availability.
- **Bolstered** system resilience through deep-level bottleneck analysis of multi-threaded Java applications using JProbe, reducing latency by 20%.
- **Spearheaded** the deployment of enterprise-scale SAML federated identity solutions, establishing a unified security framework for partners like US social security department, Blue Cross and Blue Shield, Prudential and DHL.

Aether Systems, Marlboro, MA | Application Engineer | 02/2003 – 08/2004

- **Modeled** fault-tolerant backend services for the FireRMS suite that supported thousands of emergency response agencies with enterprise-grade resilience.
- **Standardized** automated installation frameworks, decreasing manual setup overhead by 50%.

Standard and Poor's, Harrison, NY | Senior Program Analyst | 09/1999 – 02/2004

- **Led** the client-side architecture for Xstream, a high-performance market data ecosystem that delivered real-time Level 1 and Level 2 data to 2M+ users.
- **Mobilized** the technical strategy powering white-label financial portals for **Reuters, CNN, and Yahoo**.
- **Created** a first-of-its-kind web realtime 'push' data system that delivered live market updates to millions of users simultaneously. This eliminated the need for page refreshes, providing the sub-second speed required for professional stock trading long before modern web standards existed.

EDUCATION

BS, Computer Science and Engineering
Shanghai JiaoTong University, Shanghai, China