James (Yoon Jae) Nam

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Summary

Senior Software Engineer with over 12 years of experience building scalable real-time communication systems and mobile/web infrastructure. Spent 9 years at Google as a core contributor and engineering leader on the Google Chat team. Expert in cross-platform architecture, concurrency, and full-stack engineering. Passionate about applying AI to solve complex engineering and user problems.

Professional Experience

Independent AI Engineer Sunnyvale, CA (Remote) **January 2026 – Present**

- Engineered a privacy-first, streaming-based, real-time AI chat application using Next.js 16, Vercel AI SDK, and Gemini 2.5 Flash.
- Architected a custom in-memory state engine to ensure zero-persistence data privacy.

Senior Software Engineer **Google** (Sunnyvale, CA) **October 2016 – January 2026**

AI Innovation & Leadership

- **AI Prototypes**: Developed multiple full-stack AI prototypes using Firebase Studio and Antigravity, including a natural language CRM interface, a multimodal (video+audio) agent for e-commerce, and a Chat application that uses Gemini function calling.
- **AI Debugging Tools**: Built an AI-driven debugging tool using context-aware prompt engineering to diagnose crash reports.
- **Mentorship**: Managed 10 interns, with 7 returning as full-time. Conducted 100+ interviews and served on hiring committees.
- **Awards**: Awarded 10+ peer bonuses and Gold Awards for contributions to multiplatform engineering and concurrency.

Core Infrastructure & Architecture

- **Cache Invalidation Protocol**: Architected and implemented a revision-based cache invalidation protocol to resolve complex data integrity issues without requiring app upgrades, a solution subsequently adopted by major projects (threading, attachments).
- **Web on Shared Architecture**: Led core parts of the "Web on Shared" infrastructure initiative, migrating Google Chat Web to a shared data layer to unify logic across Android, iOS, and Web.
- **Kotlin Multiplatform (KMP)**: Contributed to Kotlin Multiplatform efforts by identifying desired and incompatible code patterns and implementing 10+ regex-based static analysis checks to prevent regressions.
- **Concurrency & Stability**: Significantly reduced iOS crash rates by diagnosing complex concurrency issues and authoring comprehensive guidelines and precise regex-based static analysis checks on thread safety in the shared client data layer.

Product Scale & Feature Growth

- **Scale & Growth**: Played a pivotal role in scaling the product over 10x, enabling "Guest Access" (cross-organization communication) and "Consumer Access" (free user support).
- **User Capabilities System**: Designed and implemented the "Chat User Capabilities" system, a centralized logic engine governing user permission across 20+ Chat features, adopted on both client and server.
- **Sync Reliability**: Resolved critical user-visible sync issues by enhancing the revisioned sync mechanism, ensuring data freshness.

Software Engineer, Growth team **Coursera** (Mountain View, CA) **January 2015 – September 2016**

- Built key workflows (Home, Dashboard, Onboarding) and analyzed 100+ A/B tests.

Software Engineer **Palantir Technologies** (Palo Alto, CA) **January 2014 – January 2015**

- Re-architected a major product into a single-page application (SPA), significantly improving user experience.

Education

Stanford, CA **Stanford University** **2010 – 2014**

- B.S.E. in Computer Science (conferred in January 2014)
- Awards: Frederick E. Terman Award (Top 5% of Engineering Majors)
- GPA: Major 4.1/4.3, Overall 4.0/4.3.

Certifications

- Deep Learning Specialization (Coursera / DeepLearning.AI)
- Machine Learning Specialization (Coursera / Stanford Online, DeepLearning.AI)

Skills

- **Languages**: Java, Python, Swift, Kotlin, Objective-C, JavaScript/TypeScript, SQL, C++
- **Technologies**: Gemini API, AI Agents, Flutter, React, Django, Next.js, Firebase, Tensorflow, PyTorch, Gemini CLI, Antigravity
- **Concepts**: Real-time Communication, Distributed Systems, Concurrency, Cross-Platform Development (KMP)