

An Sung

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Technical Skills

- Languages: Java, C++, Python, JavaScript/TypeScript, SQL
- Cloud & Infrastructure: AWS (SNS, EC2, S3, DynamoDB), Telemetry/Observability pipelines
- Tools & Frameworks: Chromium/Blink, Android Web Platform Tests (WPT), React, Docker, CI/CD pipelines
- Specialties: Distributed Systems, High-Throughput APIs, Rate Limiting, Backend Architecture

EXPERIENCE

mirwork.ai | Technical Advisor Feb 2026 – Present

- Advise the founding engineering team on backend architecture, GCP infrastructure design, and early-stage scaling for an AI-focused product MVP.
- Conduct architecture reviews and establish foundational standards for CI/CD pipelines, observability metrics, and cloud resource cost optimization.
- Provide ongoing technical mentorship to early engineering hires, focusing on distributed system design patterns and operational best practices.

Google — Software Engineer, Chrome Browser | Mountain View, CA Feb 2023 – Jun 2025

- Maintained the Web Platform Test (WPT) infrastructure for Chrome on Android, ensuring cross-browser spec compliance for mobile web APIs.
- Prototyped WPT-gen, a Python-based test generation tool for Android. Pitched the architecture to senior leadership, securing roadmap prioritization to replace manual test-authoring.
- Triageed and debugged regressions in the Chromium C++ rendering engine caught by mobile test runs, working directly with the Blink engine team to patch race conditions and memory leaks.
- Optimized test suite execution on resource-constrained Android emulators, bringing test flakiness below 2% for the continuous integration pipeline.

Amazon — Software Engineer, AWS HealthOmics | Santa Clara, CA Mar 2022 – Feb 2023

- Owned the observability and operational readiness track for the General Availability (GA) launch of AWS HealthOmics.
- Designed the metrics taxonomy and built the telemetry pipelines used by on-call engineers to monitor customer workflow executions and data ingestion latency.
- Set up automated alarming, anomaly detection, and operational runbooks, dropping mean time to resolution (MTTR) for high-severity tickets by 40% during the service's first six months.

Amazon — Software Engineer, AWS SNS | Vancouver, BC Sep 2019 – Mar 2022

- Optimized the core publish-to-delivery fanout mechanism for SNS. Rewrote legacy Java fleet components to aggressively batch backend requests, increasing single-node message throughput by 15%.
- Implemented a distributed rate-limiting service to protect downstream SMS and email providers from noisy-neighbor traffic spikes, utilizing a distributed token bucket algorithm.
- Reduced telemetry storage costs by \$200k/year by migrating high-volume internal service logs to a tiered S3 storage lifecycle and implementing a strict sampling strategy for successful HTTP requests.
- Handled high-pressure on-call rotations for a Tier-1 AWS service. Wrote Correction of Errors (COE) documents to drive long-term systemic fixes for availability drops.

Thrive Health | Software Engineer Intern 2018

- Implemented an offline-first caching layer using Service Workers and React for hospital check-in workflows, cutting redundant API requests by 40% during peak hours.

Public Health Agency of Canada | Bioinformatics Engineer Intern 2017

- Engineered a parallelized E. coli serotype prediction tool, optimizing core algorithms to improve legacy profiling speed benchmarks by 13%.

EDUCATION

University of British Columbia — B.Sc. in Computer Science | Vancouver, BC

Sep 2015 – May 2019