

An Sung

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SUMMARY

Software Engineer with 5+ years of experience in distributed systems and developer infrastructure at Google and AWS. Expert in reducing latency, execution time, and storage costs via systems-level optimization. Skilled in cloud-native services, CI/CD, and high-throughput backend architecture. Recent work includes LLM-assisted developer tooling and large-scale test automation.

EXPERIENCE

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

- Enhanced the CI/CD pipeline of the Chrome rendering engine to automate the execution of 120k tests.
Technologies: WPT (Web Platform Tests), Android, WebView
- Improved the testing framework to speed up execution by 7x.
Strategies: Work-stealing, batching, context sharing, hybrid testing with real devices
- Built an LLM-assisted tool to automate weak coverage detection, resulting in 100+ monthly AI generated test cases.
Technologies: LLM (PaLM), WPT, Python, Workflow Automation

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

- Made key contributions to public launch: Implemented Core API gateway microservice and added secure workflow execution. **Technologies:** Java, Spring Boot, AWS IAM, Docker
- Reduced latency of a time-critical pipeline used in distributed compression by 15%.
Strategies: Autoscaling, Optimized scheduling for compute-intensive genomic tasks.
- Automated infrastructure provisioning to speed up deployment by 6x (reducing time from 45 minutes to 8 minutes).
Technologies: CloudFormation, AWS CodePipeline, Python, Bash

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

- Developed a PubSub subscriber microservice to reduce failed deliveries to unreachable endpoints by 5x.
Technologies: Java, Spring, Amazon CloudWatch
- Reduced telemetry storage costs by 60% YoY. **Strategies:** Adaptive log sampling, tiered archival
- Implemented a distributed rate limiter to protect downstream services from bursty traffic, reducing p99 latency by 20%.
Technologies: DynamoDB, FCM (Firebase Cloud Messaging), APNs (Apple Push Notification Service)

Thrive Health — Software Engineer Intern | Vancouver, BC Apr 2018 – Aug 2018

- Developed an optimized local caching layer for offline questionnaire completion, decreasing redundant server-side API requests by 40% during peak hospital check-in hours. **Technologies:** React, LocalStorage API, Service Workers.

Public Health Agency of Canada — Bioinformatics Engineer Intern | Lethbridge, AB Sep 2017 – Dec 2017

- Developed *Ectyper*, an E. coli serotype prediction tool that outpaced legacy profiling benchmarks by 13%. **Strategies:** Parallel processing, State Management, Algorithm Optimization

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript / TypeScript, SQL, Bash

Cloud & Infrastructure: AWS (EC2, DynamoDB, S3, CloudFormation, CloudWatch, SNS), Docker, Kubernetes, Terraform

Backend & Distributed Systems: Spring, REST APIs, microservices, event-driven architecture, distributed rate limiting, backlog management, auto-scaling

Testing & Developer Productivity: CI/CD pipelines, Web Platform Tests, real-device test orchestration, LLM-assisted developer tooling

Tools & Practices: Git, Linux, observability & telemetry, infrastructure-as-code, Agile/Scrum

EDUCATION

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

Sep 2015 – May 2019