

Sean Huang

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SKILLS

Languages: Java, Python, C/C++, HTML, CSS, JavaScript, Typescript, Kotlin, SQL, Bash, Go

Frameworks: Flask, React, Node.js, Next.js, Electron, Linux, Tailwind, Android

Tools: SQLite, PostgreSQL, VS Code, Android Studio, GDB, Jenkins, Git, Docker, AWS

EXPERIENCE

Huawei Technologies | *Software Engineer Intern, Buffer Pool Team*

Jan 2026 – Jun 2026

- Developed and tested page locking behavior of the Buffer Pool, removing 6 deadlock/crash scenarios
- Configured a Kubernetes like Cluster Manager Service for horizontal scaling experiments, achieving a scaling ratio of 0.8 from a high availability 3 machine cluster to 6 during TPC-H SF300 stress testing
- Authored Google Test suites for 99% recovery coverage including cases of stale page handles and orphan locks
- Evaluated disaster recovery through TPC-C stress tests, discovering a 82% regression in WAL PLSN speed
- Provisioned a non-install cluster with Linux NFS measuring vertical scaling performance of SQL queries

Huawei Technologies | *Software Engineer Intern, Distributed Query Team*

May 2025 – Dec 2025

- Delivered high performance C++ to the GaussDB SQL engine to detect patterns in the query plan achieving 6 second runtime of TPC-H SF100 in a distributed system environment
- Wrote Bash/Awk scripts to incorporate Apache Parquet into TPC-DS DDL, reducing query warm run time by 42%
- Built a Jenkins CI/CD pipeline detecting TPC-DS performance regression, reducing delivery downtime by ~30%
- Wrote a C++ cost heuristic algorithm for query plan load balancing, reducing planning time up to 93%
- Leveraged Regex with Python to automate data integrity testing on 1600+ GB PostgreSQL TPC-DS data

Royal Canadian Mounted Police | *IT Technician Intern*

May 2024 – Aug 2024

- Minimized personnel downtime during hardware deployments by an estimated 46% using PowerShell scripts, Microsoft Active Directory, and SAP developed repair tools
- Troubleshoot 20+ clients' technical problems in a Windows Enterprise environment with 100% client satisfaction
- Securely sanitized classified data on 100+ workstations using PXE server and KillDisk software

RecruitForMe | *Software Developer Intern*

Mar 2023 – Jun 2023

- Developed a Trello notification system decreasing idle time by 25% using Google APIs deployed via AWS
- Created a web scraper with Scrapy to retrieve 100+ job postings from the City of Toronto Jobs

PROJECTS

Online Virtual Judge | *HTML, CSS, Typescript, Go, Python, AWS, Docker, NextJS, Nginx*

Mar 2026 – Jul 2026

- Built a platform to evaluate Python/C++ solutions to programming problems with over 200 submissions judged
- Deployed Docker images in AWS ECR to handle submission environment, called via Python in an AWS Lambda
- Leveraged AWS Amplify with Cloudflare CDN for 99.95% site uptime and configured Nginx on EC2 for the Go API

Graph Theory Visualizer App | *Kotlin, Java, Android, Jetpack Compose, Gradle, SQLite*

Aug 2025 – Oct 2025

- Constructed an interactive app supported on 99.4% android devices to plot vertex edge relations
- Utilized Kotlin, SQLite, and efficient Jetpack Compose modularization to maintain 60 FPS for pan and zoom

EDUCATION

University of Alberta | *BSc, Computer Science, CGPA 3.7*

Sep 2023 - Apr 2028

- Relevant Coursework: Data Structures & Advanced Algorithms | Database Systems | Machine Learning | Operating Systems | Computer Networks | Computer Architecture & Concurrency

Peking University | *International Summer Program*

Jul 2026 - Aug 2026