

Gavin Mak

Software Engineer

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EXPERIENCE

Google

San Francisco, CA

Software Engineer

Aug 2020 - Present

- **Continuous Integration UX Modernization (2021 - 2022):**

- Led the migration to a new UX for visualizing CI results for thousands of developers across Chromium, replacing the legacy UI with a modern and feature-rich experience.
- Successfully addressed performance challenges by implementing efficient caching mechanisms using IndexedDB and lazy-loading strategies, ensuring responsiveness despite the increased volume of data displayed.
- Designed and implemented a secure markdown-to-HTML converter and HTML sanitizer to safely render CI results, mitigating potential security risks associated with displaying arbitrary HTML content.

- **Core Developer Tools for Android and Chrome (2020 - Present):**

- Served as a primary maintainer of `depot_tools` and `repo`, essential open-source tools used by thousands of Android, Chrome, and ChromeOS developers.
- Contributed to the migration of Chromium's dependency management to Git submodules, collaborating with multiple teams and ensuring a smooth transition.
- Improved the reliability and observability of these tools through contributions to monitoring, reporting, and ensuring adherence to internal SLOs.

- **Large-Scale Git Repository Administration (2020 - Present):**

- Administered thousands of Git repositories hosted on Gerrit and Git-on-Borg, supporting development efforts across Chrome and ChromeOS.
- Led a critical project to migrate all repository access control lists (ACLs) to a new, version-controlled system, significantly improving security, auditability, and ease of management.

EDUCATION

University of California, Berkeley

Berkeley, CA

Bachelor of Arts, Computer Science | GPA: 3.8

May 2020

Relevant Coursework: Operating Systems, Data Structures and Algorithms, Computer Security, Networks and Internet Architecture, Machine Learning

Honors: Upsilon Pi Epsilon Honor Society (Top 1/3 of CS majors)

SKILLS

Languages: Python, JavaScript, TypeScript, Go, Java, Dart, SQL

Tools: Git, Gerrit, Flutter, React, Figma