

# JASMINE CHEN

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## EXPERIENCE (MOST RECENT)

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**GOOGLE** Taipei City, Taiwan  
**Software Engineer** May 2018 –

- Became the go-to person for Android camera compatibility on Chrome OS, handling issues spanning a host of components as well as multiple partners and teams. Ensured smooth Android P-to-R release upgrade and VM transition for the camera stack by identifying issues across all system components involved.
- Wrote and published a detailed [article on orientation handling](#) in Android camera apps. Distilled several complex factors involved in a clear, logical and digestible fashion. Identified and fixed all orientation issues in the official sample apps, including the first, widely-referenced camera2 API sample.
- Launched camera support for Parallels by writing a full-fledged camera client with an intricate synchronization mechanism. Added a token-based authentication mechanism to the camera platform, enabling it to distinguish all camera clients and establish granular control.
- Designed and implemented Zero-Shutter Lag (ZSL) on selected MediaTek and Intel platforms, reducing the shutter lag by up to 97.9%. Designed a pipeline that meticulously manipulates capture requests, making ZSL portable and customizable for Chrome OS.
- Enabled and launched Google Camera App as the former default camera app on Chrome OS, and took on full ownership. Added external camera support, refreshed its UI, fixed a wide array of bugs and handled app releases.

**GOOGLE** Cambridge, MA, USA  
**Software Engineering Intern** Jun 2017 – Sep 2017

- Expanded a large-scale integration testing framework used across services at Google, including YouTube Infrastructures and Search Infrastructures, to support and facilitate iterative development.
- Wrote an extension that monitors local code changes and automatically recompiles, redeploys and retests services as edits are made, in collaboration with YouTube Live developers.
- Shortened workflow of iterative testing by 1 – 8 minutes (or 10 – 20x) on each retest.

**SYNOPSISYS** Taipei City, Taiwan  
**R&D Intern** Jul 2016 – Aug 2016

- Designed, implemented and analyzed a novel, efficient and scalable graph algorithm which speeded up Nodal Analysis by 120% and reduced its memory usage by 47% on datasets used in production.
- Performed extensive profiling, data analysis and 3D graph visualization on the effects of the algorithm, and automated the process with a comprehensive set of shell scripts and a custom memory allocator.
- Wrote [massif-cherrypick \(C++, 2016\)](#), a Valgrind extension that analyzes partial memory consumptions.

**COOLER MASTER** Taipei City, Taiwan  
**Independent Contractor** Apr 2016 – Jun 2016

- Programmed LED lighting effects on MasterKeys Pro (keyboard) with its C++ SDK and Windows API.
- Attained animations with smooth gradient transitions with advanced time-driven programming.

## EDUCATION

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**NATIONAL CHIAO TUNG UNIVERSITY** Hsinchu City, Taiwan  
**Bachelor's Degree, Computer Science and Engineering** Sep 2014 – Jan 2018

- Bachelor's Thesis: [SQLGitHub \(Python, 2017\)](#), a project mentored by Mozilla to make managing GitHub organizations easier. Features a SQL-like syntax to fetch aggregate data from GitHub API. Wrote a SQL parser from scratch.
- GPA: 4.01/4.30, received 5 Academic Achievement Awards (top 5% in class) and 2 Curricular Scholarships

## SKILLS

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- Domains: Systems Programming, Android Platforms, Data Structures and Algorithms, Web Development.
- Programming: Familiar with **C++**, **C**, Python. Professional experience in Go, Java, Bash, HTML/CSS, JavaScript, SQL.

## OTHER EXPERIENCE/PROJECTS

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- Received [20+ awards in regional programming competitions](#) during student years (2007 – 2015), including several top 5 national or city-wide finishes in problem solving and web development contests, usually as team leader.
- [Awesome Competitive Programming](#): Created a curated list of awesome resources for competitive programming, algorithms and data structures. Starred by 8,000+ and forked by 2,000+ GitHub users worldwide.
- [Parallel Video Processing \(C++, 2015\)](#): A group project on parallelizing video processing. Utilized C++ <thread>, Pthread, OpenMP, CUDA and FPGA on Windows, Linux and OSX. Concluded the algorithm was memory-bandwidth bound.