

# Jasmine “Inishan” Chen

Dedicated, experienced and proficient CS student with hands-on experience working with production-scale datasets and services in notable firms. Led teams and won numerous awards in programming competitions.

## Career Summary

- **Incoming Software Engineer** at **Google Taipei**.
- **Software Engineering Intern** at **Google USA**.
  - Expanded a large-scale testing framework used by Google YouTube and Search Infrastructure developers.
- **R&D Intern** at **Synopsys Taiwan**.
  - Designed, implemented and analyzed graph algorithms on production-scale datasets.
  - Rated Best Intern of the Year and presented the work in Synopsys Shanghai.
- 11 years of experience in competitive programming. Led numerous teams and gave lectures.
  - Received 20+ national/regional awards in programming competitions.
  - Curated a well-received resource collection: "Awesome Competitive Programming" (2,500+ stars on GitHub).
- 3 years of experience in gaming industries.
  - Wrote keyboard lighting effects, implemented website designs, managed servers and coordinated events.
- Created, administered and managed multiple websites with decent web traffic.

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## Contact

Languages: **English** (fluent with neutral accent, TOEIC 940/990), **Chinese** (native)

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- [GitHub @Inishan](#)
- [LinkedIn @Inishantw](#)
- [Twitter @Inishantw](#)

## Education

- **National Chiao Tung University**
  - Bachelor's Degree, **Computer Science and Engineering** (Sep 2014 — Jan 2018), Management Science (Sep 2012 — Jun 2014)
    - 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**
    - 5 *Academic Achievement Awards* (Top 5% in class)
    - 2 *Curricular Scholarships* (Discrete Mathematics, Data Structures)
    - Teaching Assistant, *Object-Oriented Programming*
    - Relevant Coursework: Data Structures, Algorithms, Artificial Intelligence, Discrete Mathematics, Probabilities, Operating Systems, Computer Organization, Computer Networks, Computer Graphics, Computer Security, Database Systems, System/Network Administration Practice, Parallel Programming, Human Computer Interaction

## Skills

- Areas

- Algorithms , Data Structures , Backend Development , Software Engineering , Parallel Computing , Web Development , System Administration
- Languages
  - C++ , C , Python , Bash , Web ( HTML , CSS , JavaScript , PHP , MySQL )
- OSes
  - Windows (Cygwin) , macOS , Linux , FreeBSD

## Experience

- **Google**

### Software Engineer

Taipei City, Taiwan, May 2018 (expected) –

- C , C++ , Systems Programming
- Chrome OS Media

- **Google**

### Software Engineering Intern

Cambridge, MA, USA, Jun 2017 — Sep 2017

- Python , Software Testing , Infrastructures
- 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.
- Shortened workflow of iterative testing by 1 – 8 minutes (or 10 – 20x) on each retest.
- Worked with Live developers to test and enhance the extension, which also led to improvements of test cases.

- **Synopsys**

### R&D Intern

Taipei City, Taiwan, Jul 2016 — Aug 2016

- C/C++ , Algorithms , Shell Scripting , Graph Visualization , Memory Profiling
- Designed, implemented, and analyzed a novel, efficient, scalable graph algorithm that 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.
- Wrote several shell scripts and a custom memory allocator and for fully automated testing and profiling.
- Wrote [massif-cherrypick \(C++, 2016\)](#), a Valgrind extension to analyze partial memory consumptions.
- Rated Best Intern of The Year and presented the work in Synopsys Shanghai.

- **ITSA E-tutor**

### Problem Reviewer

Remote/Tainan, Taiwan, Apr 2016 — Dec 2016

- Algorithms , Discrete Mathematics
- Reviewed 120 algorithmic problems on [ITSA E-tutor](#), an online learning platform initiated by the Ministry of Education in Taiwan.
- Examined problem statements, assessed feasibility and correctness of solutions, and validated test cases.

- **Cooler Master**

### Independent Contractor

Taipei City, Taiwan, Apr 2016 — Jun 2016

- C++ , Windows API , C++ SDK , Time-Driven Programming
- 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.

- **4Gamers**

### Part-time Internship

Taipei City, Taiwan, Jan 2014 — Aug 2014

- IT , Web Development
- General IT Assistance, including setting up PCs and troubleshooting issues.
- Implemented professional web designs with HTML, CSS and JavaScript.
- Assisted many Twitch celebrity streamers (5,000 - 100,000 followers) in partnerships, sponsorships, stream moderation and other issues.

- **eGamers**

- Part-time Internship, Community Coordinator**

- Remote, Jul 2012 — Dec 2013*

- IT , Web Development , Community Coordination
    - General IT Assistance, including setting up PCs and troubleshooting issues.
    - Wrote a simple form management system for hosting tournaments and a couple handy tools for news publishing with HTML, CSS, JavaScript, PHP and MySQL.
    - Assisted many Twitch celebrity streamers (5,000 - 100,000 followers) in partnerships, sponsorships, stream moderation and other issues.

- **i-Feels.net**

- Cofounder, Administrator, Developer**

- Remote/Hong Kong, Apr 2006 — Feb 2008*

- Visual Basic , PHP , MySQL , Website Mangagment
    - Cofounded i-Feels.net and its predecessor ODB - a small development studio with friends from Hong Kong. i-Feels.net was one of the most popular forums in Hong Kong, having 60,000+ registered members and being amongst the top 500 websites in Hong Kong according to Alexa Traffic Rank.
    - Administered a number of other websites and forums with moderate web traffic during that period of time.
    - More information can be found on this [Wiki page](#).

## Honors

### Academic Performances

- **Academic Achievement Award**

- Top 5% in class in terms of overall grades

- 2016 Spring , 2015 Fall , 2015 Spring , 2014 Fall , 2014 Spring

- **Curricular Scholarship**

- Top 5% in class for the "Core Subjects" designated by the department

- Discrete Mathematics , Data Structures

### Problem Solving (Algorithms & Data Structures)

Been the **team leader** and **main coder** in all the following contests:

- **ACM-ICPC (International Collegiate Programming Contest)**

- Honorable Mention, 2015/Taipei
    - Honorable Mention, 2015/Hanoi
    - Honorable Mention, 2012/Kaohsiung

- **National Collegiate Programming Contest**

- 3rd Place, 2015
    - Honorable Mention, 2012

- **ITSA National Programming Contest**

- Honorable Mention, 2015
    - 11th Place, 2014

- **National Problem Solving Contest**

- Finalist, 2011 (15th Place)
    - Finalist, 2010 (9th Place)
    - 5th Place, 2008
    - 4th Place, 2007

- **Taipei Software Programming Contest**

- 3rd Place, 2011
    - Honorable Mention, 2009

- **Taipei Information Proficiency Competition**

- 3rd Prize, 2011
    - 3rd Prize, 2010
    - Honorable Mention, 2009

## Web Development (HTML/CSS/JavaScript/PHP/MySQL)

- **National Collegiate Programming Contest - Application Software**
  - 3rd Place, 2015
  - Honorable Mention, 2014
- **Taiwan School Cyberfair**
  - Bronze (3rd Place), 2010

## GUI (Visual Basic)

- **Information Technology Month - Creative Software Programming Contest**
  - 4th Place, 2010/National/Individual
  - 4th Place, 2009/National/Team
  - 4th Place, 2009/Northern Region/Individual

## Projects

- **Awesome Competitive Programming (Markdown, 2016)**
  - Markdown, Algorithms, Data Structures
  - A curated list of awesome resources for Competitive Programming, Algorithms and Data Structures. Currently starred by 2,500+ and forked by 600+ GitHub users worldwide. This project was aimed to connect the world to information - and it did :).
- **Ini::vector (C++, 2016)**
  - C++, Data Structures
  - An optimized, almost-C++17-compliant std::vector implementation. Up-to-149% more efficient than counterparts when tested on gcc 6, clang 3.8 and VS14. Found a mistake in Facebook's folly::fbvector.
- **massif-cherrypick (C++, 2016)**
  - C++, Memory Profiling
  - A Valgrind extension to analyze partial memory consumptions. Takes in a massif.out file, and forges a new one containing only stats of the functions that match the specified pattern..
- **ChiChew (Python, 2016)**
  - Python, Web Scraping, Packet Inspection
  - A web crawler for the Chinese-Chinese dictionary published by the Ministry of Education in Taiwan. Observed HTTP requests, inspected packets and came up with a neat approach to crawl the data.
- **Parallel Video Processing (C++, 2015)**
  - C++, Parallel Programming, Video Processing
  - A group project on parallelizing video processing. Utilized various APIs: C++11 thread, Pthread, OpenMP, CUDA and FPGA on Windows, Linux and OSX. Drawn interesting conclusions.
- **Twitch Plays Connect6 (C++, 2014)**
  - C++, Multithreading, Network Programming, Artificial Intelligence
  - A crowdsourced Connect6 game hosted on Twitch. Designed a multi-threaded interaction framework built on OpenCV, adapted an open-source IRC client and wrote a simple Connect6 AI.
- **FormMgr (Web, 2013)**
  - HTML5, JavaScript, PHP, MySQL, Web Development
  - A simple and easy-to-use form management system for organizations. Allows users to validate fields with custom regular expressions. Utilized HTML5 native drag-and-drop and JavaScript for extensive DOM manipulations.

## Talks

- Jasmine Chen. *{Name-of-testing-framework} Interactive Edit/Reload*. Google Cambridge. Sep 8, 2017.
- Jasmine Chen. *CDC Performance Improvement: Trimming Resistance Network*. Synopsys Shanghai. Nov 14, 2016.
- Jasmine Chen. *Profiling & Graph Visualization*. Synopsys Taiwan. Aug 17, 2016.
- Jasmine Chen. *State Space Search*. NCTU Training Camp. Summer 2015.
- Jasmine Chen. *Basic Enumeration*. NCTU Training Camp. Summer 2015.
- Jasmine Chen. *Essential C/C++*. NCTU Training Camp. Winter 2015.

## Trivia

- Used to solve a 3x3 Rubik's Cube in under 18 seconds on average.
- Moderated UniCube.tw - then one of the most popular online forums for Rubik's cubers in Taiwan.
- [Has 500+ games on Steam](#) through game reselling and trading. Was the first and only person in Taiwan to do so.
- [Had 3000+ followers on Twitch](#) being an active community member of esports and game streaming .
- Organized the [very first reddit AMA for TW/HK esports players](#).