

# 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

- **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.
  - **3 years** of experiences in **gaming industries.**
    - Wrote keyboard lighting effects, implemented website designs, managed servers and coordinated multiple events.
  - Been a **competitive programmer** for **11 years**, usually as the team leader.
    - Received 21 national/regional awards in programming competitions.
    - Curated a well-received learning resource collection: "Awesome Competitive Programming" (1,800+ stars, 400+ forks on GitHub).
  - 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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- Twitter @Inishantw (<https://twitter.com/Inishantw>)

# Education

- **National Chiao Tung University**

Bachelor's Degree, **Computer Science and Engineering** (Sep 2014 – Jan 2018), Management Science (Sep 2012 – Jun 2014)

- **GPA: 4.00/4.30 (Rank: 1/53)**
- Bachelor's Thesis: **SQLGitHub (Python, 2017)** (<https://github.com/lnishan/SQLGitHub>), a tool that makes managing GitHub organizations easier. Features a SQL-like syntax to query through GitHub API. In collaboration with **Mozilla Taiwan**.
- 5 *Academic Achievement Awards* (4 in Computer Science)
- 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 , ( HTML , CSS , JavaScript , PHP , MySQL )
- OSes: **Windows (Cygwin)** , **macOS** , **Linux** , FreeBSD

# Experiences

- **Google** ... Cambridge, MA, USA ..... Jun 2017 – Sep 2017

## Software Engineering Intern

- **Python** , Software Testing , Infrastructures
- Expanded a large-scale integration testing framework used across services at Google (including YouTube Infrastructures and Search Infrastructures) to support iterative development with a new build tool.
- The tool monitors local code changes and automatically recompiles, redeploys, and retests services as edits are made.
- Shortened workflow of iterative testing by 1 – 8 minutes (or 10 - 20x) on each retest.
- Worked with YouTube Live developers to gather feedback for my work.

- **Synopsys** ... Taipei, Taiwan ..... Jul 2016 – Aug 2016

## R&D Intern

- **C/C++** , Algorithms , Shell Scripting , Graph Visualization , Memory Profiling
- Rated Best Intern of the Year and presented the work in Synopsys Shanghai.
- Designed and implemented an innovative graph algorithm which speeded up Nodal Analysis by 120% and reduced its memory usage by 47%.
- Utilized a wide assortment of tools and libraries for graph visualization, debugging, validation,

profiling, data analytics and documentations.

- Wrote a Valgrind extension and several shell scripts for automated testing and profiling.

- **ITSA E-tutor** ... Work from home ..... Apr 2016 – Dec 2016

**Problem Reviewer**

- Algorithms , Discrete Mathematics
- Reviewed 120 algorithmic problems on ITSA E-tutor ( <http://e-tutor.itsa.org.tw> ), an online learning platform initiated by the Ministry of Education in Taiwan.

- **Cooler Master** ... Taipei, Taiwan ..... Apr 2016 – Jun 2016

**Independent Contractor**

- 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** ... Taipei, Taiwan ..... Jan 2014 – Aug 2014

**Part-time Internship**

- IT , Web Development
- General IT Assistance, including setting up PCs and troubleshooting issues.
- Implemented professional web designs with HTML, CSS and JavaScript.

- **eGamers** ... Work from home ..... Jul 2012 – Dec 2013

**Part-time Internship, Community Coordinator**

- IT , Web Development , Community Coordination
- Worked closely with Twitch celebrity streamers (5,000 - 100,000 followers).
- 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.

- **i-Feels.net** ... Hong Kong / Work from home ..... Apr 2006 – Feb 2008

**Cofounder, Administrator, Developer**

- 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 \(http://evchk.wikia.com/wiki/I-Feels.net\)](http://evchk.wikia.com/wiki/I-Feels.net).

## 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 \(Markdown, 2016\)](https://github.com/lnishan/awesome-competitive-programming) (<https://github.com/lnishan/awesome-competitive-programming>)
  - Markdown , Algorithms , Data Structures
  - A curated list of awesome resources for Competitive Programming, Algorithms and Data Structures. Currently starred by 1,800+ and forked by 400+ GitHub users worldwide. This project was aimed to connect the world to information - and it did :) .
- [Ini::vector \(C++, 2016\)](https://github.com/lnishan/vector) (<https://github.com/lnishan/vector>)
  - 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 \(C++, 2016\)](https://github.com/lnishan/massif-cherrypick) (<https://github.com/lnishan/massif-cherrypick>)
  - C++ , Memory Profiling
  - A Valgrind extension to analyze partial memory consumptions. Given a massif.out file as input, generates a new one with only stats of matched functions.
- [ChiChew \(Python, 2016\)](https://github.com/lnishan/ChiChew) (<https://github.com/lnishan/ChiChew>)
  - 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 \(C++, 2015\)](https://github.com/sunset1995/parallel_analysis) ([https://github.com/sunset1995/parallel\\_analysis](https://github.com/sunset1995/parallel_analysis))
  - C++ , Parallel Programming , Video Processing
  - A 3-person course project on parallelizing video processing. Utilized various parallel APIs - C++11 thread, Pthread, OpenMP, CUDA and FPGA on Windows, Linux and OSX. Achieved great results.
- [Twitch Plays Connect6 \(C++, 2014\)](https://github.com/lnishan/TwitchPlaysConnect6) (<https://github.com/lnishan/TwitchPlaysConnect6>)
  - C++ , Multithreaded Programming , Network Programming , Artificial Intelligence
  - A crowdsourced Connect6 game hosted on TwitchTV. Designed a multi-threaded interaction framework built on top of OpenCV, adapted an open-source IRC client and wrote a simple Connect6 AI.
- [FormMgr \(Web, 2013\)](http://lnishan.net/FormMgr/) (<http://lnishan.net/FormMgr/>)
  - 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

- CDC Performance Improvement: Trimming Resistance Network, InnoDay, Synopsys Shanghai, Nov 14, 2016
- Profiling & Graph Visualization, Synopsys Taiwan, Aug 17, 2016
- [State Space Search \(http://www.slideshare.net/JasmineChen23/state-space-search-66388212\)](http://www.slideshare.net/JasmineChen23/state-space-search-66388212), NCTU Training Camp, Summer 2015
- [Basic Enumeration \(http://www.slideshare.net/JasmineChen23/basic-enumeration-chinese\)](http://www.slideshare.net/JasmineChen23/basic-enumeration-chinese), NCTU Training Camp, Summer 2015
- [Essential C/C++ \(http://www.slideshare.net/JasmineChen23/essential-cc\)](http://www.slideshare.net/JasmineChen23/essential-cc), 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 \(http://steamcommunity.com/id/lnishan\)](http://steamcommunity.com/id/lnishan) through game reselling and trading. Was the first and only person in Taiwan to do so.
- [Had 3000+ followers on TwitchTV \(https://www.twitch.tv/lnishan\)](https://www.twitch.tv/lnishan) being an active supporter of esports and game streaming in general.
- Organized the [very first reddit AMA for TW/HK esports players \(https://www.reddit.com/r/leagueoflegends/comments/13rca6/tpa\\_toyz\\_ama\\_answers\\_englishtchinese/\)](https://www.reddit.com/r/leagueoflegends/comments/13rca6/tpa_toyz_ama_answers_englishtchinese/).