# Jasmine "lnishan" 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.

---

## Table of Contents

---

## Contact

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

- Email: `jasmine.chen.cs@gmail.com`
- GitHub @lnishan (https://github.com/lnishan)
- LinkedIn @lnishantw (https://www.linkedin.com/in/lnishantw)
- Twitter @lnishantw (https://twitter.com/lnishantw)

## 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).

# 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)
    - `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 :) .
- lni::vector (C++, 2016) (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)
  - `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)
  - `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)
  - `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)
  - `C++` , `Multithreaded Programming` , `Network Programming` , `Artificial Intelligence`
  - A crowrdsourced 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/)
  - `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), NCTU Training Camp, Summer 2015
- Basic Enumeration (http://www.slideshare.net/JasmineChen23/basic-enumeration-chinese), NCTU Training Camp, Summer 2015
- Essential C/C++ (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) 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) 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/).