

# Tony (Lih-Ren) Chang

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## EDUCATION

### The University of Melbourne, Melbourne, Australia

Jul. 2018 - Jul. 2020

- **Master of Information Technology** (Computing), **WAM: 76.86%**
- Completed Coursework: Internet Technologies, Advanced Database Systems, Distributed Systems, Software Processes and Management, AI Planning for Autonomy, Statistical Machine Learning, Mobile Computing Systems Programming, Evaluating the User Experience

### National Tsing Hua University (NTHU), Hsinchu, Taiwan

Sep. 2016 - Jun. 2017

- Extension education program, Department of Computer Science, **GPA: 3.7/4.3**
- Completed Coursework: Data Structures (A), Operating Systems (A-), Computer Architecture(A-), Discrete Mathematics(A), Algorithms

### National Central University (NCU), Chung Li, Taiwan

Sep. 2008 - Jun. 2013

- Bachelor of Science in Chemical and Materials Engineering, **GPA: 3.3/4**

## SKILLS

**Web Development:** JavaScript, HTML, CSS, React, Node.js, Express, Nginx

**Programming Skills:** Java, Python, C++, MongoDB, MySQL, GitHub Version Control, Android, Agile Methodology, Apache Heron

**Languages:** English (Fluent), Mandarin (Native), Taiwanese (Native)

## SIDE PROJECTS

### Job Application Tracker in MERN Stack and AWS

Oct. 2020

- Improved the efficiency of the job-seeking process by creating a single-page web application to manage and track the progress of job applications

## RESEARCH PROJECTS

### Benchmarking Stream Processing Frameworks in Java

Jan. 2020

- Increased the overall performance of Dragon by 50% by comprehensively comparing the behavior between the two latest distributed big data streaming frameworks: Apache Heron and Dragon (deployed in Nectar Research Cloud)

## SUBJECT PROJECTS

### T-Rex Game Mobile App with Motion Sensing in Android and Java

Oct. 2019

- Developed a motion-controlled gaming App with a user-friendly interface and handled application data via Firebase Realtime Database

### Pac-Man Game AI in Python

Oct. 2019

- Attained the top 15% ranking in the AI competition of our league by designing a Pac-Man game AI by integrating different techniques

### Automatic Fact Verification System in Python

May 2019

- Built an information retrieval system with a self-trained deep learning model to extract evidence from a large text corpus and validate claims

### P2P File Sharing System in Java

May 2019

- Developed a distributed system based on TCP/UDP protocol to achieve efficient file sharing and synchronization among users

### Spelling Correction System in Python

Sep. 2018

- Corrected the misspelled words according to the word frequency model and several approaches (e.g., the Levenshtein algorithm)

### Bicycle Sharing Management System in C++

Dec. 2016

- Implemented a system that allows the bike-sharing company to manage bike rental, payment, and returning between different sites

## WORK EXPERIENCE

### Private Tutor, Taipei, Taiwan

Jul. 2014 - Jun. 2016

- Mathematics and Programming (junior-high-school level)

### Substitute Military Service, Veterans Affairs Council, Taiwan

Jul. 2013 - Jun. 2014

*Government agencies, The Republic of China (Taiwan)*

- Retrieved and processed numerous data of demobilized soldiers from the government database system for further usage (e.g., Long-term care, vocational training, and medical aid)

## HONORS & ACTIVITIES

### Excellent Performance of Substitute Civilian Serviceman Award, Taiwan

2014

- Selected as one of 100 outstanding substitute civilian servicemen over 26000 candidates based on leadership and contribution

### Volunteer Experience, Taiwan

2012

- Designed and hosted various activities in educational camps held in schools lacking academic resources