

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, Algorithms, Advanced Database Systems, Distributed Systems, Software Processes and Management, AI Planning for Autonomy, 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)

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, AWS

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

Languages: English (Fluent), Mandarin (Native), Japanese (Basic)

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 with a RESTful API server to manage the progress of job applications by using MongoDB, Express, React, and Node.js (deployed on AWS)

RESEARCH PROJECTS

Benchmarking Stream Processing Frameworks in Java

Jan. 2020

- Increased the overall performance of Dragon by 50% by comprehensively comparing the behavior between two distributed big data processing frameworks for serving real-time streaming needs: Apache Heron and Dragon (deployed on 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 (The FEVER challenge) in Python

May 2019

- Achieved the top 20% ranking of the whole class by building an information retrieval system with a self-trained deep learning model by utilizing AllenNLP and PyLucene

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