Tony (Lih-Ren) Chang

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🏠 https://kbtony.github.io/   ⬛ https://github.com/kbtony

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, Web Search and Text Analysis (Handle natural language processing and text retrieval), Distributed Systems, Declarative Programming (Haskell and Prolog), Software Processes and Management, AI Planning for Autonomy, Mobile Computing Systems Programming, Statistical Machine Learning, 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

Programming Languages: Java, Python, JavaScript, C++, C, MySQL, MIPS, Haskell, Prolog
Software Development Skills: GitHub Version Control, HTML, CSS, MongoDB, React JS, Android, Unix, Apache Heron, Agile Methodology
Languages: English (Fluent), Mandarin (Native), Taiwanese (Fluent)

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   Jan. 2020
- Increased the overall performance of Dragon by 50% by comprehensively comparing the behavior between the two latest distributed stream data processing systems: Apache Heron and Dragon

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
- Physics and Mathematics (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