Tong-Ing (Tony) Wu

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EDUCATION

The University of Melbourne, Melbourne, Australia   Jul. 2018 - Jul. 2020

- Master of Information Technology, **WAM: 77.67/100**
- Distinguished Coursework: Programming and Software Development (H1), Internet Technologies (H1), AI Planning for Autonomy (H1), Mobile Computing Systems Programming (H1), Research Project (H1)
- Research Project: "Benchmarking Distributed Stream Processing Systems"; Technologies involved: Java, Python, Linux, Apache Storm, Apache Zookeeper, Dragon, Nectar Cloud, Building Computer Clusters

National Tsing Hua University (NTHU), Hsinchu, Taiwan   Sep. 2016 - Jun. 2017

- Continuing Education Program, Department of Computer Science, **GPA: 4.15/4.3**
- Coursework: Data Structures (A+), Operating Systems (A+), Design and Analysis of Algorithms (A), Computer Architecture (A)

National Chiao Tung University (NCTU), Taipei, Taiwan   Sep. 2009 - Jun. 2013

- Bachelor of Science, Applied Chemistry

SKILLS

Programming: Java, Python, C/C++, JavaScript, HTML5/CSS, MySQL, MIPS, Haskell, Prolog
Other development skills: Android, Web Development (MERN Stack), Unix/Linux, Git, Agile Development, Apache Storm
Languages: English (Fluent), Mandarin (Native), Taiwanese (Fluent), Japanese (Basic)

PROJECTS

Task manager in MERN (MongoDB, Express.js, React.js, Node.js) Stack   Oct. 2020
- Implemented a single page application which can help people manage tasks and deployed it to AWS and Heroku
- Utilized MongoDB, Express.js, React.js, Node.js to provide RESTful API

Motion Sensing Game in Android and Java   Oct. 2019
- Implemented a motion sensing game with multiple sensors in mobile phones
- Designed the user interface and connected this app to a Firebase

Pacman Game AI in Python   Oct. 2019
- Implemented an AI agent that can play Pacman Game against other teams. (Ranked top 15%)

Twitter Authorship Attribution in Python   Oct. 2019
- Implemented a system that can identify the likely authorship of a given tweet, given a collection of tweets whose authorship is known

Automatic Fact Verification System in Python   May 2019
- Build an information retrieval system (search engine) to retrieve possible evidence using PyLucene
- Trained a deep learning model to verify claims using Wikipedia corpus. (Ranked top 20%)

P2P File Sharing System in Java   May 2019
- Build a TCP/UDP based distributed system which allowed file sharing and synchronization
- Utilized cryptography API (Bouncy Castle) to implement a secure way to control peers remotely

Spelling Corrector in Python   Sep. 2018
- Implemented a word frequency model and used Levenshtein Distance to predict misspelled words. (Precision: 85%, Recall: 83%)

Indexing Algorithm Design for processor cache in C   Dec. 2016
- Implemented least recently used replacement policy (LRU)
- Designed a cache indexing scheme to minimize cache conflict miss

Bicycle-sharing System in C++   Dec. 2016
- Implemented a rental bike system which can manage bikes, such as adding, renting, transferring, returning and discarding bikes

WORK EXPERIENCE

Software Engineer, Melbourne, Victoria, Australia   Dec. 2019 – Mar. 2020
Scram Software
- Maintained and developed unit tests and functional tests in Python to validate our products, thereby increasing the reliability
- Wrote scripts to extend original tests and conducted experiments to solve engineering problems

Engineering Project Manager, Taipei, Taiwan   Sep. 2015 – Mar. 2016
Career Technology (MFG.) Co., Ltd
- Managed project progress, shipping schedule, and related issue until product goes mass production
- Resolved customer complaints by working closely with engineering team on finding root cause of failure