Chia-wei Chang

Citizenship: permanent resident of United States of America Telephone: 9794220139

Email Address: hunkywei@tamu.edu Mailing Address: 605 Coachlight Court, College Station, TX 77845 U.S.A.

Education

Texas A&M University, College Station, TX - Aug. 2016 to Present

Master of Computer Science Grade Point Average: 3.87/4.0

- Relevant courses include Analysis of Algorithms, Database System, Advanced Network and Security, Machine Learning, Advanced Compiler Design, Information Storage and Retrieval and Advanced Operating System

National Chung Cheng University, Chia-Yi, Taiwan - Sept. 2012 to June 2016

Bachelor of Communications Engineering Grade Point Average: 3.4/4.0

- At the top 5 engineering schools in Taiwan, Ranked 10 out of 55 in class of 2016
- Received a Dean's List Award and two Academic Progress Awards

Programming Language Skills

- C/ C++, Python, JavaScript, JAVA, VB.NET, SQL, CSS/HTML, PHP, MATLAB

Relevant Experience

Software Developer Intern at Sprint - Jun. 2017 to Aug. 2017

- Contributed to SDN/NFV open source C3PO that handles larger subscriber load without impacting speed
  - Proven that parallel pattern matching scanning offline downlink packets in a multi-core program can extract rules to make Network intelligently flexible, improve security and computers utilization
- Developed IoT system leveraging Humanoids and cloud servers on inventory and greeting in Sprint stores
  - Robots use beacon-based geo-fencing techniques walking and scanning RFID on inventory automatically
  - Greeting consumers by their phone data and facial expressions, creating disability-friendly environment

Technical Research Assistant of Engineering Technology and Industrial Dist. Dept. - Aug. 2016 to May. 2017

- Programed a real-time robotic industrial arm that collaborates vision, fingertip pressure, and speed sensors, and Artificial Neural Network to mimic human hand movements and gestures
- Designed an intelligent agent for image recognition on breadboard with reinforcement learning, rule-based decision tree and case-based reasoning from user feedbacks to assist web-based teaching

Software Engineer Intern at Industrial Technology Research Institute of Taiwan - Sep. 2015 to Nov. 2015

- Achieved throughput of 300 Mbit/s to a single mobile device by bandwidth aggregation of LTE small cell and Wi-Fi links. Worked with a team of six people
- Developed dynamic functionality of streaming to allow a user to change the transmission path in multi-thread

Projects

- Implemented source-to-source optimizing compiler for Fortran77 in C++
  - Designed algorithm including constant propagation and dead code/common sub expression elimination to optimize and automatically parallelize Fortran77 using the Minipolaris framework.
  - Evaluated optimization phases by testing on real programs, performing dataflow and dependency analyses in static single assignment form, and emitting OpenMP parallel programming directives to achieve speedup.
- Developed a context awareness phone app to detect a "man in the middle attack" in a smart home scenario
  - Invented this new lightweight service by analyzing Received Signal Strength Indicator of Bluetooth
  - Reduced the false positive rate to below 0.83 percent by applying the K-means clustering algorithm
- Designed an Amazon fake review detector analyzing indicators of abnormal behaviors from group of reviewers
  - Utilized self-organizing map algorithm unsupervised cluttering out 98 % of our manipulated fake reviews
- Created a Database Management System that is designed to interpret and perform all MySQL queries in C++