

Ming-Chang Chiu

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EDUCATION	<p>University of Southern California (USC), Los Angeles, California, USA Master (M.S.) in Electrical Engineering Aug 2016 – May 2018 (Expected)</p> <p>National Tsing Hua University (NTHU), Hsinchu, Taiwan Bachelor of Science (B.S.) in Electrical Engineering & Computer Science Sep 2011 – Jun 2015</p> <ul style="list-style-type: none">• Selected as the only one honorary member of Phi Tau Phi Scholastic Society in the department• Last 60 GPA: 4.05 / 4.30 Cumulative GPA: 3.82 / 4.30 (Excluding credits at University of Minnesota) <p>University of Minnesota, Twin-Cities, Minnesota, USA Exchange Student in Computer Science and Engineering Sep 2014 – Dec 2014</p> <ul style="list-style-type: none">• Introduction to Intelligent Robotics (A) Advanced Programming Principles (A)• Cumulative GPA: 4.0 / 4.0, 15 credits <p>Tsinghua University, Beijing, China Summer Exchange Student in Computer Science Aug 2012 – Sep 2012</p>
SKILLS	C/C++, MATLAB, Ocaml, Java, Python, Hadoop, HTML, PHP, Javascript, \LaTeX , Spark, AWS, MySQL, Scala, R
RESEARCH PROJECTS	<p>The World is Changing: Finding Changes on the Street Feb 2015 – Sep 2015</p> <ul style="list-style-type: none">• Constructed image change detection model, successfully detected street view mismatches in Dash camera images with respect to Google Street View (GFV)• Applied RANSAC to re-outline the areas of mismatches in the original GFV images with accuracy outperforming baseline by 46%• Devised a reusable manual labeling software and data types that recorded ground truth mismatch areas <p>Re-scheduling Computing Job on Large-Scale System Jul 2013 – Aug 2014</p> <ul style="list-style-type: none">• Applied Hadoop benchmark (HiBench) to test performance of processing different types of computing job on scalable distributed system• Analyzed and found suitable disk for certain computing job type• Applied machine learning algorithm on Linux resource usage to discern types of computing and then move the data to appropriate disk to proceed, either on Hard Disk or Solid-State Disk
APPLICATION PROJECTS	<p>Movie Recommender Mar 2015 – Jun 2015</p> <ul style="list-style-type: none">• Implemented 3 common recommendation methods and utilized MovieLens database to recommend movies• System built on Amazon AWS platform which enables to process millions of data in a short time <p>Basic Dictionary Search Engine Feb 2015 – Apr 2015</p> <ul style="list-style-type: none">• Implemented PageRank algorithm to construct a search engine which prioritizes the related links given a keyword• Coded under scalable MapReduce framework on 8-node distributed computers having storage/retrieval functions <p>Autonomous Robotic Convoy System Design Oct 2014 – Dec 2014</p> <ul style="list-style-type: none">• Proposed an algorithm that makes rovers to recognize only one moving object without getting distracted• Utilized ultrasonic sensor to detect object distances and devised a paradigm to discern the original moving object <p>Remote Control Car Apr 2014 – Jun 2014</p> <ul style="list-style-type: none">• Circuit design connecting motors, batteries, and embedded controller• Developed a Smart Phone application using Bluetooth Low Energy to remotely control a toy car <p>Midnight Radio: A Shared Online Radio Platform Apr 2014 – Jun 2014</p> <ul style="list-style-type: none">• Developed front-end web pages including fancy user/administrator portal, chatting room, music list, etc.• Built back-end user upload system, administrator supervision function, and music information database <p>One-on-one Chinese Chess Game Aug 2012 – Sep 2012</p> <ul style="list-style-type: none">• Designed graphical user interface and realized the rules of the game with Qt (C++)• Applied Internet Programming so people can connect through Internet to play.
PUBLICATIONS	K.-T. Chen, <u>M.-C. Chiu</u> , F.-E. Wang, J.-T. Lin, F.-H. Chan, Min Sun, “The World is Changing: Finding Changes on the Street,” submitted to <i>Asian Conference on Computer Vision (ACCV) 2016</i>
PROFESSIONAL EXPERIENCE	<p>Broadsound Corporation, Jupei City, Hsinchu, Taiwan. Jul 2013 – Sep 2013</p> <p>Intern</p> <ul style="list-style-type: none">• Completed full-stack production process of a Wind Gauge, including product design, system analysis, assembling, calibrating, testing, and exporting• Developed part of their all-in-one ProCheck software (including probe calibration, testing, and data collection) which became one of their major revenue source• Final profit generation: About \$100K