Ping-Chia (Amber) Tsai

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EDUCATION

University of Washington, Seattle WA — September 2014 – December 2016 (expected)
M.S. in Electrical Engineering

- GPA: Overall 3.82/4.0
- Coursework: Microcomputer Systems, Systems Programming, Operating Systems, Database Systems, Machine Learning, Artificial Intelligence for Engineer, Models of Robot Manipulations, Probability and Random Processes

National Taiwan University (NTU), Taipei, Taiwan — September 2010 – June 2014
B.S. in Electrical Engineering

- GPA: Overall 3.81/4.0; Major 3.86/4.0
- Coursework: Data Structure and Programming, Introduction to Computer Networks, The design and Analysis of Algorithms*, Mobile Phone Programming*, Advanced Statistics (I)*, Advanced Statistics (II)*, Advanced Digital Signal Processing* (*): Graduate-level courses

SKILLS

Programming Proficiencies: C/C++, Python, Matlab, SQL, Objective-C, Ruby, HTML/CSS/JavaScript
Tools: Github, Heroku, Node.js, React.js, MongoDB, Windows Azure, Couchbase, AWS, Spark

HONORS & AWARDS

Grace Hopper Celebration (GHC) Scholarship Grant — July 2015

- Support women in computing for attending the GHC conference. The acceptance rate is 26 percent.

WORK EXPERIENCE

Consulting System Integration Intern, Ericsson Inc., Bellevue WA — June 2016 – September 2016

- Developed GUI for monitoring and preliminary analyzing data availability in different region markets
- Acquired data from SQL database and visualized data using d3.js with AMD framework

Teaching/Research Assistant, University of Washington, Seattle WA — January 2015 – June 2016

- Taught undergraduate level circuit classes with 20+ students
- Designed and developed genetic digital circuits, such as bistable switch and flip-flop, in Klavins Lab

Developer Intern, Cardinal Blue, Taipei, Taiwan — September 2013 – June 2014

- Analyzed users' behavior of PicCollage, a photo app with over 100 million downloads, and visualized the data on a dashboard using Ruby on Rails

SELECTED PROJECTS

UW EcoCar Infotainment Center — November 2015 – April 2016

- Develop infotainment platform on a touchscreen for vehicles to communicate with hardware and cloud services
- Write Python programs that communicate with cloud services to deliver driving statistics

Job Salary Prediction (Machine Learning) — Fall 2015

- Applied feature selection and linear regression methods to predicting job salary from job ads in Python using dataset provided by the 2013 Kaggle Competition
- Used NLP keyword extraction tool to process the full text of job ads

Satellite Management and Control System (Microcomputer Systems) — Summer 2015

- Used C language to develop an embedded system based on a real-time operating system with the Stellaris system
- Utilized APIs to access hardware in order to collect and process the data from sensors, control the peripherals such as GPIO, and make bidirectional remote communication via a simple web server and network interface

Music Recommendation Based on Artist Novelty and Similarity, MPAC Lab, NTU — Fall 2013 – Fall 2014

- Developed a novelty-based music recommendation system which provides novel and fond music to users
- The proposed system was evaluated by 106 subjects and achieves high performance
- Publication: *2014 IEEE International Workshop on Multimedia Signal Processing (MMSP).*

Mind Map (Mobile Phone Programming) — Fall 2013

- An iOS app by which participants can record and organize their thoughts or flow of minds during brainstorming
- Learned the basic knowledge on human-computer interaction and how to create a mobile phone app