Pu-Chin Chen

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Education

University of California, Los Angeles   *Sept. 2016-June 2018(expected)*

M.S. in Data Science Engineering (distance education in my 1st year)

- Coursework: Database Systems; Anticipated Courses: Big Data Analytics, Big Data Systems, Adaptation and Learning, Advanced Modeling and Inference, Learning and Reasoning with Bayesian Networks
- GRE: Q170

University of California, Berkeley   *July 2013-Aug. 2013*

Summer Program   *GPA: 3.7/4.0*

National Taiwan University (NTU)   *Sept. 2011-June 2015*

B.S. in Computer Science & Information Engineering (CSIE)   *Last 60 GPA: 3.46/4.0*

- Coursework: Data Structures and Algorithms, Operating System, Computer Network, Object-Oriented Software Design, Machine Learning, Web Retrieval and Mining, Linear Algebra, Probability, Advanced Statistics

Project Experience

Movie Database System with Web Interface, *Database Systems*, UCLA   *Sept. 2016-Oct. 2016*

- Launched a movie database system using MySQL with PHP and Apache2 server handling 100,000+ data.
- Unified a variety of querying, browsing and data adding functionality as an easy-to-use Web Service.

Fleat: Manipulating Drones by Hand Gestures, *Treehacks Hackathon*, Stanford   *Feb. 20th-22nd, 2015*

- Created a body-controlled drone system by Java and Kinect, attracting 2 companies for potential cooperation.
- Achieved 90%+ accuracy to recognise 8 gestures in real-time using K-nearest neighbour algorithm.
- Proposed speed-detection algorithms reducing 10-25% time delay due to inertia forces.

User Defined Gestures for Flying Objects, *Bachelor Thesis*, NTU   *June 2014-Oct. 2014*

- Summarised a set of most intuitive in-air gestures reflecting user behaviours such as ease of recognition, consistency, reversibility, and versatility, making it a good candidate for deployment in drone systems.
- Presented a taxonomy useful for analysing and characterising gestures in drone development.

Level Learning: Classify Tutorials by Difficulty, *Web Retrieval and Mining*, NTU   *Mar. 2014-June 2014*

- Extracted text features using TF-IDF concept from online learning tutorials crawled by Python.
- Ranked 10 levels of documents difficulty for each query using semi-supervised learning.

Handwriting Recognition System for Chinese Characters, *Machine Learning*, NTU   *Nov. 2013-Jan. 2014*

- Improved 10-15% accuracy by image pre-processing(e.g. trim redundant margin, normalise font size).
- Experimented several models(e.g. SVM, linear regression) and got 82.1% accuracy using random forest.

Role-Playing Game, *Object-Oriented Programming*, NTU   *Mar. 2013-June 2013*

- Developed core game features including dialog system, sound effects, moving animation, bag for holding accessories, map switching and keyboard control system using Java Swing GUI.
- Designed a map editor for utilising image elements and generating multiple relational maps.

AP Beacon Data Transfer, *Computer Network Laboratory*, NTU   *Mar. 2014-June 2014*

- Used android phone as access point. Revised SSID by android API.
- Improved indoor transmission distance up to **20** meters.

Majoraha: A Salary-Oriented Platform for College Major, UC Berkeley   *July 2013-Aug. 2013*

- Ranked average starting salary, average mid-career salary and growth in pay over university majors.
- Visualized salary data crawled from Forbes by D3.js.

Official Website, *HackNTU*, NTU   *Nov. 2014-Feb. 2015*

- Implemented by NodeJS and ReactJS.

A Wearable Rehabilitative Device for Supporting Drug Addicts, *Designing for User Experience*, NTU   *Oct. 2014-Jan. 2015*

- Executed the UX design process, including interviewing target audience, synthesizing field notes by affinity diagram, clarifying three insights and building the Persona.
- Integrated three solutions within an intelligent watch, helping reduce drug addiction relapse.

Work & Leadership Experience

Mandatory Military Service, *Artillary Soldier*, Taiwan (R.O.C) Army   *Aug. 2015-Aug. 2016*
- Served as a qualified 20 mm cannon operator. Proficient in PSTAR radar and DMS missile system mounting.

Teaching Assistant, *Data Structure and Algorithm*, NTU-CSIE   *Mar. 2015-June 2015*
- Initiated and instructed linux and git foundation workshops first time in this course for a **200+** enrolled students class, which helped improve learning efficiency significantly from feedbacks of most students.

Back-End Engineer, *Fountain Inc.*, Taipei, Taiwan   *Oct. 2014-Feb. 2015*
- Designed schema and constructed database for our e-commerce platform by MongoDB and Java.
- Established the network between Android client and Java server by socket programming.

Vice President, *HackNTU*   *Mar. 2015-Aug. 2015*
- Led an organization with **9** departments of **68** members and **80** volunteers to host a **3-day** hackathon for more than **800** nationwide students and industry professionals.
- Integrated cross-department communication and directed a technical team to build official websites, web game and bicycle tail light for marketing purpose. Technologies included NodeJS, ReactJS, AnuglarJS, Dart and Arduino.
- Achieved sponsorship for more than **NT$3,000,000** through building collaborative partnership with 10 multinational enterprises such as Foxconn, Taipei City Government, Tutor ABC, Plug&Play, CyberLink.

Skills

Languages: Native in Mandarin; Fluent in English
Proficient in: Java, C/C++, SQL, PHP, JavaScript, NodeJS, HTML, Git
Familiar with: Python, MongoDB, ReactJS, UNIX shell scripting, LaTeX
Interests: Street Dance, Swing Dance, Chinese History