PU-CHIN CHEN

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Education

University of California, Los Angeles (UCLA) **Distance Education in the 1st year**
M.S. in Data Science Engineering Sept. 2016-Present

- Coursework: Database Systems, Data Mining; Anticipated Courses: Big Data Systems, Artificial Intelligence, Pattern Recognition and Machine Learning, Computer Security, Database and Knowledge Bases, Convex Optimization
- GPA: 4.0/4.0; GRE: Q170/170 (**Top 3%**)

National Taiwan University (NTU) **Taipei, Taiwan**
B.S. in Computer Science Sept. 2011-June 2015

- Coursework: Data Structures and Algorithms, Operating System, Computer Network, Object-Oriented Software Design, Machine Learning, Web Retrieval and Mining, Linear Algebra, Probability, Advanced Statistics
- Taiwan National College Entrance Exam: Math: 100/100 (**Top 1%**); Physics: 99/100 (**Top 0.1%**)
- **Bachelor Thesis Project: Manipulating Drones by Gestures Recognition**
  - Represented NTU in 2015 Stanford Treehacks Hackathon; Created a body-controlled drone system within 36 hours using Java to control Kinect and AR.Drone, attracting 2 companies for potential cooperation.
  - Achieved 90%+ accuracy to recognize 8 gestures in real-time using K-nearest neighbor algorithm; Proposed speed-detection algorithms reducing 10-25% time delay caused by inertia forces.

Work Experience

Data Science Intern **Taipei, Taiwan**
Far EasTone Telecommunications Co. Jan. 2017-Present

- Optimized MySQL database with **3000%** improvement from exponential to linear time (e.g. 7 days to 6 hours); Expanded scalability of data wrangling system and paralleled tasks under Linux architecture.
- Extracted features from **billions** of daily machine-generated data; Transformed hundreds of time series and spatial attributes to business interpretable variables; Built customer satisfaction forecasting model using Python sklearn.
- Analyzed customer behavior and lifestyle from **7 million** users through trajectory mining and time series clustering using discrete wavelet transform.

Database Administrator **Taipei, Taiwan**
DiQi Inc. (Blockchain Technology Startup) Oct. 2014-Feb. 2015

- Communicated with business partner and identified client needs, striking a balance between their requirements.
- Conducted in-depth research and analysis on user habits to design database schema.
- Constructed NoSQL server using MongoDB and monitored database performance on a daily basis; Established the network between Android client apps and server by socket programming using Java.

Selected Projects

Movie Database System with Web Interface, *Database Systems* **UCLA**

- Unified a variety of querying, browsing and data adding functionality as an easy-to-use Web Service. Fall 2016
- Launched a movie database system using MySQL with PHP and Apache2 server handling 100,000+ data.

Level Learning: Classify Tutorials by Difficulty, *Web Retrieval and Mining* **NTU**

- Explored text features using TF-IDF concept from online learning tutorials crawled by Python. Spring 2014
- Ranked 10 levels of documents difficulty for each query using semi-supervised learning.

Handwriting Recognition System for Chinese Characters, *Machine Learning* **NTU**

- Improved 10-15% accuracy by data cleaning and image pre-processing. Winter 2014
- Experimented several models(e.g. SVM, linear regression) and got 82.1% accuracy using random forest.

Majoraha: A Salary-Oriented Platform for College Major, *Web Application* **UC Berkeley**

- Analyzed data crawled from 3 websites, presenting impacts of college majors on future earnings. Summer 2013
- Visualized breakdown of salaries in relation to majors by bar chart, pie chart and bubble chart using D3.js.

Skills & Interests

Proficient in: Java, Python, SQL, C/C++, JavaScript, Linux, Git
Familiar with: PHP, NodeJS, MongoDB, LaTeX
Languages: Native in Mandarin; Fluent in English
Interests: Street Dance, Coffee, Chinese History