

Technical Skills

C++, Python, Numpy, Pandas, sklearn, keras, Tensorflow, Selenium, Natural Language Processing, Machine Learning
Java, R, Matlab, HTML, CSS, JavaScript, SQL, PHP, Django, Git, ADA, Scheme, Haskell, SML

Experience

Research Assistant - National Taiwan University 2017 - 2018

ML project, NameSex on PyPI, Package to predict gender tendency from a Chinese given name (in Traditional Chinese).

- <https://pypi.org/project/namesex>
- Collected **10,730** Chinese given names with reliable labels from single-gender high schools' public data.
- Trained a word embedding using Word2Vec algo in gensim on Yahoo News with **87 million Chinese characters**.
- Trained predictive models such as **K-NN and logistic regression**.
- Performed model tuning and validation by k-fold and reached an **accuracy of 89.57%** on cross validation set.

Software Engineering Intern - Xaduro Inc. 2018 - 2018

SWE intern at a start-up company providing property management systems for hotels, hostels, and B&Bs.

- Utilized **JavaScript** and **PHP** for hotels' management system maintenance.
 - Programmed room overbooking notification to prevent overbooking from different booking websites.
 - Used JavaScript Json for operating **data transfer tasks** from AsiaYo to Xaduro's database.
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Side Projects

Unsupervised Classification for Super Basketball League Players - [ML Project](#) 2019 - 2019

Alternative categorization for basketball players rather than traditional categories of guard, forward, and center.

- Collected players' game performance data from the official site of SBL using Python Selenium.
- Conducted data preprocessing, e.g. remove duplicate player data, remove useless columns like birthday.
- Created an additional dataset by weighting players' performance to a same playing time of 25 mins per game.
- Performed dimensionality reduction using **Principal Component Analysis , t-SNE, and LDA**.
- Applied **K-means** clustering and **hierarchical agglomerative clustering** for strategic team formation.

Foxconn Tech. Stock Price Prediction - ML Project 2018 - 2018

Prediction of an increase or a decrease on Foxconn Tech's stock price using online news.

- Collected and categorized the news data in relations to an increase or decrease in stock prices.
- Searched for positive and negative keywords from the news using **N-gram** (2-gram ~ 6-gram).
- Used the keywords selected through **TF-IDF as features** of news to fit into various **regression algorithms**.
- Reached an **accuracy of 82%** predicting a rise or fall in stock price on cross validation set using **k-fold**.

Basketball Statistics System - [Sports Project](#) 2017 - 2017

- Utilized **Django** to develop a log in and statistical system for more than **10 teams** at National Taiwan University.
 - Designed and constructed the **database** storing teams, players and games data **using SQLite**.
 - Team Managers can add/modify/remove players of the team and record players' game performance by the system using a tablet, saving the time of data logging on computers after using pen and paper.
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Education

New York University - M.S., Computer Science - GPA 3.9 New York City, NY 2022

National Taiwan University - B.B.A., Information Management - Presidential Academic Award Taipei, Taiwan 2019

- Class Representative, Graduate Representative, Captain of NTUIM's Basketball Team, Softball Varsity Team