

# Jui-Pin Liu (劉睿彬)

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## Education

### National Chiao-Tung University (交通大學)

June 2012 - June 2016

- B.S. in Computer Science
- Zi-Xin (資心) Project Scholarship
- Advised by [Ying-Ping Chen \(陳穎平\)](#)

Hsinchu, Taiwan

### National Experimental High School at Hsinchu Science Park (新竹科學園區實驗高中)

Hsinchu, Taiwan June 2009 - June 2012

## Publications

### Automatically Proving Mathematical Theorems with Evolutionary Algorithms and Proof Assistants

Yang, L.-A., **Liu, J.-P.**, Chen, C.-H., & Chen, Y.-p. (2016). Automatically Proving Mathematical Theorems with Evolutionary Algorithms and Proof Assistants. In Proceedings of 2016 IEEE Congress on Evolutionary Computation (CEC 2016), part of 2016 IEEE World Congress on Computational Intelligence (IEEE WCCI 2016) (pp. 4421–4428). doi: [10.1109/CEC.2016.7744352](#). ([arXiv:1602.07455](#)).

## Work Experience

### Foxconn Technology Group

Dec. 2017 –

Machine Learning Engineer

Shenzhen, China

- Optimize optical inspection model for products with deep learning algorithms.
- Analyze industrial data to build prognostic health monitoring model.
- Support teaching programs by lecturing employees in the company.

### Private Tutor

Sept. 2014 – Jan. 2015

Part-Time High School Mathematics Lecturer

- Teach a ninth-grader to improve his problem solving techniques in mathematic mainly in Permutation & Combination, Possibility and Statistics.

## Project Experience

### Shen-Chao Display Panel Defect Detection Project (深超面板瑕疵檢測專案)

Mar. 2018 – May. 2018

Responsible For

- Data engineering, feature engineering and deep learning modeling.

Tools Used

- NumPy, Matplotlib, Tensorflow, CNN deep learning models and other image processing packages.

### CAA Mobile Phone Defect Detection Project (CAA 手機瑕疵檢測專案)

Jul. 2018 – Oct. 2018

Responsible For

- Data engineering, feature engineering, deep learning modeling and system integration testing.

Tools Used

- NumPy, Matplotlib, Tensorflow, Keras, R-CNN deep learning models and other image processing packages.

Project Effectiveness

- In one of the photo data sets, the accuracy reached up to 85%, and the mAP reached more than 60%.

# Teaching

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## **Python Data Collection and Preprocessing (Python 資料收集與預處理)**

Aug. 2018 -

Assistant Lecturer

Foxconn Industrial Internet Academy

- Teach how to use NumPy, Pandas for data collection and preprocessing.

## **Image Recognition Practice Training (圖像辨識實戰研習)**

Dec. 2018 -

Project Advisor

Foxconn Industrial Internet Academy

- Instruct students to conduct after-class projects and help solve technical problems.

## **Python Data Visualization (Python 資料視覺化)**

Dec. 2018 -

Assistant Lecturer

Foxconn Industrial Internet Academy

- Teach how to use Matplotlib, Seaborn for data visualization.

## **Feature Engineering (數據特徵工程)**

Apr. 2019 -

Assistant Lecturer

Foxconn Industrial Internet Academy

- Teach how to engineer features and build simpler, faster and more reliable machine learning models.

## **Machine Learning (機器學習)**

Apr. 2019 -

Assistant Lecturer

Foxconn Industrial Internet Academy

- Introduce the basic concepts of machine learning and its classical algorithms.

# Leadership Experience

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## **Substitute Service Training Center, National Conscription Agency (役政署替代役訓練班)**

Division Leader (區隊長)

Taichung, Taiwan Oct. 2016 - Sept. 2017

- Train recruits of substitute services and manage human resources in the recruit training unit at Chenk-Kung Hill (成功嶺) Training Center.