

Ming-Ruey(Ray) Chou

(+886) 966525557
✉ imchou239@gmail.com
🌐 MingRuey
Twitter: imchou239
6F, No.3, Ln.125, Yitong St., Taipei, Taiwan

Self-motivated learner. Devote to technology and programming.

SKILLS

Programming Python: Linux - IDE/Virtualenv/Docker & Windows - Anaconda, Java, IDL, Labview
Machine Learning TensorFlow, Keras, Scikit-Learn, Pandas, Lightgbm, OpenCV .etc with Python
Database MySQL
Language Mandarin: Native; English: Fluent

PROJECTS

- Top 16% **Kaggle - iMaterialist Challenge(Fashion) at FGVC5**
Image Classification
 - Utilized multi-thread programming to speed up processing over one million images
 - Transfer learning for standard CNNs with Keras
 - Applied GrabCut and spectral saliency detection to segment background/foreground for preprocessing
- Top 19% **Kaggle - Google AI Open Images - Object Detection Track**
Object Detection
 - Packed data into highly efficient TFRecord format, handling the largest dataset – Open Images Dataset V4
 - Employed TensorFlow object detection API to do transfer learning on Faster-RCNN architecture
- Top 21% **Kaggle - RSNA Pneumonia Detection Challenge**
Pneumonia Detection
 - Built Unet and Faster-RCNN from scratch with TensorFlow and automated training with Estimator API
 - Boosted prediction accuracy with data augmentation techniques including half-splitting, rotating, and flipping
- Top 27% **Kaggle - Avito Demand Prediction Challenge**
Demand Predicting
 - Preprocessed data with Pandas over one million data
 - Enhanced GPU-based GBDT model performance with iterative process of EDA and feature engineering
- T-Brain AI- Taiwan ETF Price Prediction**
Time Series Prediction
 - Modeled ETF prices with ARIMA and experimeted random forest classifier with traditional technical indicators

EDUCATION

- 2016 **M.S. in Physics**, *Department of Physics*, National Taiwan University.
2013 **B.S. in Physics**, *Department of Physics*, National Taiwan University.

Course Work – Coursera :

- Algorithms 4E, Robert Sedgewick and Kevin Wayne; Princeton
- Machine Learning Foundations, Hsuan-Tien Lin; NTU
- Machine Learning, Andrew Ng; Stanford
- Introduction to SQL, Charles Severance; Michigan
- SQL for Data Science, Sadie St. Lawrence; UC Davis

WRITING

M.S. Thesis **Rheometry on Concentrated Suspension of Soft Particles**
(In Mandarin) www.phys.sinica.edu.tw/jctsai/Ray2016/

OTHER EXPERIENCE

- JAN, 18 ; JUL, 18 **Twin Oaks Education**, *Course Design and Project Mentor*, www.twinoaks-edu.com/.
2017 **Substitute Services in Education**, *Xinyi Elementary School*, Hualien, Taiwan.