

Ming-Ruey(Ray) Chou

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🌐 MingRuey

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6F, No.3, Ln.125, Yitong St., Taipei, Taiwan

A 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.