

Ming-Ruey(Ray) Chou

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🌐 MingRuey

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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

Kaggle - iMaterialist Challenge(Fashion) at FGVC5

- In Top 16% Multi-label image classification competition on over 1 million fashion pictures
- Utilized multi-thread programming to speed up processing
 - Transfer learning for standard CNNs with Keras
 - Applied GrabCut and spectral saliency detection to segment background/foreground for preprocessing

Kaggle - Google AI Open Images - Object Detection Track

- In Top 19% Object detection competition over 1 million photos with 500+ categories
- 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

Kaggle - RSNA Pneumonia Detection Challenge

- In Top 21% Detect pneumonia and its position from X-ray images
- 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

Kaggle - Avito Demand Prediction Challenge

- In Top 27% Product demand prediction over one million data from Russian shopping website
- Cleaned and preprocessed data with Pandas
 - Enhanced GPU-based GBDT model performance with iterative process of EDA and feature engineering

T-Brain AI- Taiwan ETF Price Prediction

- Time series prediction competition over 50 ETF indices
- Modeled ETF prices with ARIMA and experimted 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.