KUAN-TING (TIM) LIU

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Education

Cornell Tech at Cornell University — **New York, NY**
M.S. in Information Systems and Applied Information Sciences, May 2021

National Tsing Hua University — **Hsinchu, TW**
B.S. in Medical Science, June 2016, last 60 GPA: 3.96 / 4.30
- Led a team of 4 in AIESEC NTHU and set the record of highest number of tech and educational internships in 3 years.

Experience

2018-2019 **National Taiwan University** — **Taipei, TW**
Machine Learning Engineer, Machine Discovery and Social Network Mining Laboratory
- Designed and implemented a generalized active learning framework for data labeling with quality control strategies using Python and PyTorch.
- Collected the first dataset for sequential sentence classification in the computer science area with up to 11,000 labeled data.

2017-2018 **Academia Sinica** — **Taipei, TW**
Data Engineer, Data Insight and Research Laboratory
- Assisted lecturer in "Hands-on Deep Learning in Keras" to ensure all students understand how to apply neural network on real world problems.
- Designed and implemented data driven models for healthcare sensor data and medical images with Python, OpenCV and PyTorch.
- Developed 1D multi-scale residual CNNs for non-invasive glucose measurement and showed 93.2% of samples are within zone A of CEG analysis.
- Implemented residual structure within 3D CNNs and improved R-squared metric from 88% to 92%.

2016-2017 **Council of Agriculture, Executive Yuan** — **Jiji, TW**
Software Engineer Intern, Endemic Species Research Institute
- Built a data visualization platform to promote citizen science and nature conservation with HTML and CSS.
- Optimized data pipelines for Breeding Bird Survey Taiwan to improve the efficiency with R shiny package.
- Developed “Brood Patch Index” for the first biodiversity methodology to evaluate the monthly breeding status for each endemic avian.
- Implemented a web crawler for the Facebook group - "Front of the Birds" using Python and Selenium with high reusablility.

Publications

Automation of the kidney function prediction and classification through ultrasound-based kidney imaging using deep learning. Chin-Chi Kuo, Chun-Min Chang, **Kuan-Ting Liu**, Wei-Kai Lin, Hsiu-Yin Chiang, Chih-Wei Chung, Meng-Ru Ho, Pen-Ren Sun, Rong-Lin Yang, and Kuan-Ta Chen. (2019) Nature Partner Journals Digital Medicine.

Skills

Programming: Python, R, C++, Java, HTML, CSS, JavaScript, Latex
Tools: PyTorch, TensorFlow, Keras, OpenCV, NumPy, Pandas, Shiny, Selenium, Django
Relevant Courses: Applied Machine Learning, HCI and design, Introduction to Algorithms, Data Structures, Operating Systems

Awards

College Student Research Scholarship 2016
Summer Academic Research Scholarship 2015