

HUNG-YI (TONY) WU

+886-910-726-098
wutonytt.cs07@nycu.edu.tw
<https://www.linkedin.com/in/wutonytt/>

EDUCATION

National Yang Ming Chiao Tung University (NYCU, former NCTU)

Hsinchu, Taiwan

B.S. in Computer Science, Overall GPA: 4.00/4.30

Sept. 2018 – June 2022 (Expected)

- Honors:
 - 2019 Hsinchu Du Cheng Huang Temple Scholarships for outstanding students
 - 2020 Taipei Wenchang Temple Scholarship for outstanding students

WORK EXPERIENCE

National Yang Ming Chiao Tung University

Hsinchu, Taiwan

Research Assistant at Artificial Intelligence & Multimedia Lab (AIMM Lab)

Sept. 2021 – Present

- Referring Expression Comprehension
 - Increased 6% accuracy of the Referring Expression Comprehension tasks on RefCOCO Datasets as compared to the state of the art method
 - Visualized the attention of the predicted bounding boxes and the expressions in experimental results as the qualitative evaluation
 - Performed experiments with our proposed method and other state of the art methods with different partitions of the data

Synopsys, Inc.

Hsinchu, Taiwan

Technical Engineering Intern (R&D Software Engineer Intern)

July 2021 – Aug. 2021

- PLRC Performance Optimization
 - Decreased 20% of the total turnaround time of Critical Dimension Variation Check (CDV Check) in Proteus Lithography Rule Check
 - Completed the regression tests and helped to identify the internal precision issue between two kinds of CDV Check

PUBLICATIONS

- [1] J. Wang, H.-Y. Wu, J.-C. Chen, H.-H. Shuai, and W.-H. Cheng. Residual Graph Attention Network and Expression-Respect Data Augmentation Aided Visual Grounding. Submitted to *Conference on Computer Vision and Pattern Recognition (CVPR)*. 2022. (Under Review)

PROJECTS

Fake News Detection using a BERT-Based Deep Learning Approach

May 2021 – June 2021

- Utilized LSTM, Bidirectional LSTM, CNN-BiLSTM, and BERT-based model to perform fake news detection
- Successfully achieved 97% to 99% accuracy on University of Victoria ISOT Fake News Dataset

Camera-Based Table Tennis Posture Analysis

Sept. 2020 – June 2021

Advisor: Prof. I-Chen Lin

- Utilized an SVM model to classify table tennis players' postures (forehand, backhand, etc.) with skeleton detection and successfully achieved 92% overall accuracy on test videos
- Built a model to trace balls and tables by Semantic Segmentation with Google AI's EfficientNet with a 90% average IoU score on test images

Stock Price Prediction

Apr. 2021

- Implemented a Long Short-Term Memory model to predict stock prices for the next 10 days based on data for the past 1000 days. Data was fetched by Yahoo! Finance API
- Successfully verified and visualized the trends of actual and predicted stock prices for the past 10 years

SKILLS

- Programming: Python, C++, Go, MySQL, MATLAB, C, HTML, CSS, JavaScript, PHP, Shell Script, LaTeX
- Others: NumPy, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV, Matplotlib, Seaborn, Git, Nginx