

Ting-Chih Chen

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Education

Virginia Polytechnic Institute and State University

M.S. in Computer Science and Applications

Virginia, USA

2022 - Excepted Dec. 2023

- GPA: 3.78/4.0
- Relevant Coursework: Machine Learning, Deep Learning, Data Analytics, Multimodal Vision

National Changhua University of Education

B.S. in Computer Science and Information Engineering

Changhua, Taiwan

2017 - 2019

- Relevant Coursework: Linear Algebra, Probability, Data Mining

Research Experience

Virginia Polytechnic Institute and State University

Graduate Research Assistant

Virginia, USA

Summer 2022

- Built up a wikiHow instrumental video dataset
- Researched about inductive/abductive reasoning
- Methods: employed multi-modalities models and induced knowledge from LLMs

National Center for High-Performance Computing

Research Internship

Taichung, Taiwan

Summer 2019

- Built up a boat images dataset
- Researched YOLO2 and object detection

University Projects

Heterogeneous Graph Network for MP-Doc VQA

Multimodal Vision

Virginia, USA

Spring 2023

- Built up the single-modality knowledge graph and multi-modalities knowledge graph
- Implemented a graph neural network with T5

Fine-Grained Image Captioning

Deep Learning

Virginia, USA

Spring 2023

- Implemented image captioning with ExpansionNet in Flickr30K
- Explored the performance of different visual embeddings (ViT and Swin Transformer)

Attacking on Disrupting-Deepfakes

Security

Virginia, USA

Fall 2022

- Built up an AE to remove perturbation from disrupting deepfakes
- Proved the perturbed images cannot affect other deepfakes models

News Category Prediction

Machine Learning

Virginia, USA

Spring 2022

- Implemented Naive Bayes with TF-IDF in the classification task
- Evaluated with F1 score, accuracy, and confusion matrix

Skills

Language Programming Python, Java, C/C++, JavaScript, HTML/CSS, PHP

Scientific Packages PyTorch, Scikit-learn, Tensorflow

Platform AWS

Publications

- Application of LSTM Neural Network in Stock Price Movement Forecasting with Technical Analysis Index

IAM2020

Ting-Chih Chen and Chin-I Lee