Shih-Yen Tao

b01901055@ntu.edu.tw +886-982-812-534
#17 Lane 175, Wuling Rd., 13th Fl., Apt. 3, Hsinchu, Taiwan, (R.O.C.) 300
jakesabathia.github.io

Research Interests

Machine Learning, Computer Vision, Natural Language Processing

Education

Carnegie Mellon University, Pittsburg, PA, USA *Aug. 2017 -*

- M.S. in Computer Science - Language Technology Institution

National Taiwan University, Taipei, Taiwan *Sept. 2012 - Present*

- B.S. in Electrical Engineering
- Overall GPA: 4.08/4.3

Research Experiences

Multimedia and Machine Learning Lab, *Academia Sinica, Taipei, Taiwan*

- **Research Assistant** *Feb. 2015 - Feb. 2017*
  - Zero-Shot Learning for Fine-Grained Image Classification [1]
    Proposed a model to match visual and semantic concepts via semantics-preserving locality embedding.
  - Domain Adaptation for Object Recognition and Cross-Lingual Text Categorization [2]
    Proposed to learn a domain-invariant latent space by matching cross-domain data distributions.
  - *Advisor: Dr. Yu-Chiang Frank Wang*

Speech Processing Lab, *National Taiwan University, Taipei, Taiwan*

- **Undergrad Research Assistant** *Sept. 2015 - Feb. 2017*
  - Working on deep domain adaptation for key terms extraction via Attention-Based LSTM network.
  - Built a Massive Open Online Courses learning map[1] by considering lecture similarities and prerequisites.
  - Constructed a Hidden-Markov-Model Chinese speech recognition system with Kaldi in bash script.
  - *Advisor: Prof. Lin-Shan Lee*

Publications

[1] **Shih-Yen Tao**, Yi-Ren Yeh, Yao-Hung Hubert Tsai, and Yu-Chiang Frank Wang.
"Semantics-Preserving Locality Embedding for Zero-Shot Learning", in *BMVC 2017*. [Code]

[2] **Shih-Yen Tao***, Yuan-Ting Hsieh*, Yao-Hung Hubert Tsai, Yi-Ren Yeh and Yu-Chiang Frank Wang.
"Recognizing Heterogeneous Cross-Domain Data via Generalized Joint Distribution Adaptation",
in *ICME 2016* **(Oral Presentation)**. (*equal contributions) [PDF] [Code] [Talk] [Slide]

Academic Services

Reviewer:

- CVPR 2017, AAAI 2017

Skills

Programming Languages: Python (proficient), MATLAB (proficient), C++, C#, Java
Tools: Tensorflow (proficient), Keras (proficient), Kaldi, LaTeX, Unity

[1] Structuring Lectures in Massive Open Online Courses (MOOCs) for Efficient Learning by Linking Similar Sections and Predicting Prerequisites (Shen *et al.*, *INTERSPEECH 2015*)