Han Yang

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Education

University of Pennsylvania Aug. 2023 - Dec. 2023
Exchange in School of Engineering and Applied Science *PA, USA*

- Cumulative GPA: **4.000**/ 4.000
- Advanced Courses:
  Computer Graphics; Natural Language Processing; Applied Machine Learning

The Chinese University of Hong Kong (CUHK) Sep. 2021 - Present
B.Sc. in Computer Science *Hong Kong SAR, China*

- Cumulative GPA: **3.879**/ 4.000
- TOEFL iBT: 104/120
- Honors and Awards:
  Arthur and Louise May Memorial Scholarship (2023); Yasumoto International Exchange Scholarship (2023); The KY Young and CK Ma Memorial Scholarship (2023); Professor Omar Wing Memorial Scholarship (2022); ELITE Stream Scholarship (2022, 2023); Dean's List (2022, 2023); Honors at Entrance Scholarship (2021)

Research Interest

Multi-modal learning between vision, language and audio.

Publications

Han Yang, Tianyu Wang, Xiaowei Hu and Chi-Wing Fu, SILT: A Shadow-aware Iterative Label Tuning Approach for Learning to Detect Shadows from Noisy Labels, In *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2023

Research Experience

Unified generative model for music, motion and language May 2023 - present
supervised by Prof. Chuang Gan, MIT-IBM Watson AI Lab *MA, USA*

- Able to perform conditional generation tasks on any combination of music, motion, and text.
- Adopted dynamic-time-warping to align unpaired music and motion and synthesize large-scale data.
- Employed a joint codebook for encoding music and motion and performed music-motion joint generation.
- Reduced computation demands by only requiring fine-tuning existing music and language models.

Shadow detection with self-training on noisy training data May 2022 - Feb 2023
supervised by Prof. Chi-Wing Fu, CUHK *Hong Kong SAR, China*

- Designed a self-training framework to train a shadow detection network and refine the noisy training data
- Proposed data augmentation methods to enhance the network's understanding of shadow
- Relabeled and refined the test set of SBU-shadow dataset
- Surpassed previous state-of-the-art methods by large margins, *i.e.*, reduced Balanced Error Rate from 5.58 to 4.18.

Extra-curricular Activities

- Won Honorable Mention Award in 2022 Mathematical Contest in Modeling.

Skills

Languages Mandarin (native), English
Programming Python, PyTorch, C/C++, Java, html, LaTeX