Hsuan-I Ho

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Education

ETH Zürich, Zürich, Switzerland *(Sep 2018 –)*

MSc in Computer Science

- Current weighted GPA 5.66 / 6.00

National Taiwan University, Taipei, Taiwan *(Sep 2012 – June 2016)*

B.S. in Electrical Engineering

- Overall GPA: 4.12/4.30, Major GPA: 4.17/4.30, Ranking: 12/190 (6.3%)

Tokyo Institute of Technology, Tokyo, Japan *(Sep 2015 – Mar 2016)*

YSEP (Young Scientist Exchange Program) in Department of Computer Science

- Academic Record: 91.4/100

Experience

Clova AI, NAVER Corp. *(Sep 2019 – Dec 2019)*

Research Intern

- Advisor: Dongyoon Wee
- Human pose tracking and pose-invariant person re-identification

Vision and Learning Lab, National Taiwan University *(Mar 2017 – July 2018)*

Research Assistant

- Advisor: Prof. Yu-Chiang Frank Wang
- Deep metric learning, domain adaptation and egocentric video summarization.

Media IC & System Lab, National Taiwan University *(Mar 2016 – Jan 2017)*

Research Assistant

- Advisor: Dr. Po-Chen Wu, Prof. Shao-Yi Chien
- Object pose estimation, object pose tracking and augmented reality.
- Proposed new benchmark dataset for evaluating 6DoF object pose tracking.

Koike Laboratory, Tokyo Institute of Technology *(Sep 2015 – Mar 2016)*

Exchange Research Program

- Advisor: Prof. Hideki Koike
- 3D object-camera modeling, projector camera system and human-computer interface.

Publications

Minho Shim, **Hsuan-I Ho**, Jinhyung Kim, Dongyoon Wee, "READ: Reciprocal Attention Discriminator for Image-to-Video Re-Identification", in European Conference on Computer Vision (ECCV), 2020.

Hsuan-I Ho, Minho Shim, Dongyoon Wee, "Learning from Dances: Pose-invariant Re-identification for Multi-Person Tracking", in International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2020. [PDF, Project page]

Hsuan-I Ho, Wei-Chen Chiu, Yu-Chiang Frank Wang, "Summarizing First-Person Videos from Third Persons' Points of Views", in European Conference on Computer Vision (ECCV), 2018. [PDF, Project page]

Po-Chen Wu, **Hsuan-I Ho***, Yueh-Ying Lee*, Hung-Yu Tseng*, Ming-Hsuan Yang, and Shao-Yi Chien, "A Benchmark Dataset for 6DoF Object Pose Tracking", in IEEE International Symposium on Mixed and Augmented Reality (ISMAR Adjunct), 2017. (*- indicate equal contribution) [PDF, Project page]

Selected Project

Learning pose-aware human representations for conditional person image translation [PDF] *(Dec 2019 – Jan 2020)*

Deep Learning Course Project, ETH Zurich

- Proposed Multi-Objective Multi-Identity Network (MOMI-Net) which solved issues of requiring paired training data and auxiliary pose inputs in existing image translation works.

SMNNet: Spatial-temporal Multimodal Network for Dynamic Gesture Recognition [PDF , Project page] *(Mar 2019 – June 2019)*

Machine Perception Course Project, ETH Zurich

- Developed new framework of end-to-end multimodal action recognition which obtained 91.2% accuracy and ranked second place among 150-people leaderboard.

Supe®oad: Road segmentation through multi-objective ensemble and geometric-aware post-processing [PDF, Project page] *(Mar 2019 – June 2019)*

Computational Intelligence Lab Course Project, ETH Zurich

- Designed innovated framework integrating deep neural network and graph-based optimization for aerial image segmentation task and ranked second place among 400-people competition.

Summarizing First-Person Videos from Third Person's Point of View *(Mar 2017 – Mar 2018)*

Published on ECCV 2018, Vision and Learning Lab **[PDF, Project page]**

- Proposed framework for learning first-person video summarization when lacking in annotated first-person training data.
- Combined domain adaptation, deep semi-supervised learning with video summarization.

Honors

Appier Artificial Intelligence and Information Technology Research Scholarship (2018)

1st Prize of MOST Generative Adversarial Networks Project Competition (2017)

3rd Prize of 2016 Agrithon (Agricultural Hackathon) in Taiwan *(2016)*

Teaching Experience

Teaching Assistant, *Deep Learning for Computer Vision* [Link] *(Mar 2018 – June 2018)*

Lecturer, *Deep Learning Crash Course for Master Students* [Link] *(July 2018)*

Technical Skills

Programming: Python, C/C++, MATLAB, Linux OS, TensorFlow, PyTorch, OpenCV, Blender, Docker