

HSUAN-I HO

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EDUCATION

ETH Zurich, Switzerland

09/2018 - 04/2021

MSc in Computer Science

- Final Grade 5.76/6.00
- Master thesis title: “**Motion Guided Human Video Synthesis**”
Diploma thesis, Grade: 6.0/6.0

National Taiwan University, Taiwan

09/2012 - 06/2016

BSc in Electrical Engineering

- Grade Point Average: 4.12/4.30, Ranking: 12/190 (6.3%)

Tokyo Institute of Technology, Japan

09/2015 - 03/2016

Young Scientist Exchange Program in Department of Computer Science

- Academic Record: 91.4/100
- Research topic: “**Handheld Projector-Camera System and Augmented Reality**”

PRACTICAL EXPERIENCE

Advanced Interactive Technologies Lab, ETH Zurich, Switzerland

04/2021 - 09/2021

Research Assistant

- Proposed a novel framework of synthesizing human-centric videos with neural network.
- Implemented practical video super-resolution applications in the FIFA player tracking system.
- Published research results, gave presentations to the computer vision research group.

Clova AI, NAVER Corp., South Korea

09/2019 - 12/2019

Research Internship

- Developed a pose-invariant re-identification model in the human tracking service to improve the tracking accuracy of dance videos.
- Contributed a new dance video dataset for evaluating the performance of human tracking.
- Assisted the application of re-identification patent and the integration of human tracking service.

Vision and Learning Lab, National Taiwan University, Taiwan

03/2017 - 07/2018

Research Assistant

- Proposed a technique of learning first-person video summarization when lacking in annotated first-person training data.
- Published research results, attended conferences, reviewed conference papers.
- Teaching assistant for deep learning and computer vision courses, supervised undergraduate students conducting semester projects.

Media IC & System Lab, National Taiwan University, Taiwan

03/2016 - 01/2017

Research Assistant

- Proposed a new benchmark dataset for evaluating 6DoF object pose tracking.
- Designed and implemented baselines for the experiments on the proposed benchmark dataset.

TEACHING EXPERIENCE

Deep Learning Crash Course for Master Students, Lecturer, NTU

07/2018

Deep Learning for Computer Vision, Teaching Assistant, NTU

03/2018

SELECTED PUBLICATIONS

- Minho Shim, Hsuan-I Ho, Jinhyung Kim, Dongyoon Wee, “**READ: Reciprocal Attention Discriminator for Image-to-Video Re-Identification**”, ECCV, 2020.
- Hsuan-I Ho, Minho Shim, Dongyoon Wee, “**Learning from Dances: Pose-invariant Re-identification for Multi-Person Tracking**”, ICASSP, 2020.
- Hsuan-I Ho, Wei-Chen Chiu, Yu-Chiang Frank Wang, “**Summarizing First-Person Videos from Third Persons’ Points of Views**”, ECCV, 2018.
- Po-Chen Wu, Hsuan-I Ho*, Yueh-Ying Lee*, Hung-Yu Tseng* (* indicates equal contribution), Ming-Hsuan Yang, and Shao-Yi Chien, “**A Benchmark Dataset for 6DoF Object Pose Tracking**”, IEEE ISMAR, 2017.

SELECTED PROJECTS

- Interpolating Human Action by Motion Guided Neural Rendering** *2021*
[Code: [azuxmiroy/HumanSloMo](#)] [PDF]
 - Realized the proposed video synthesis pipeline on the application of video frame up-sampling.
 - Implemented cascaded components of human motion modelling and 2D neural rendering.
 - Proposed a new high-frame-rate and high-quality human activity video dataset for evaluation.
- Reciprocal Attention Discriminator for Image-to-Video person Re-ID** *2020*
[Code: [minostauros/READ](#)] [PDF]
 - Implemented the re-ID components used in the human tracking system.
- DanceReID: Pose-Invariant Person Re-Identification for Dance Videos** *2020*
[Code: [azuxmiroy/DanceReID](#)] [PDF]
 - Proposed a new re-ID pipeline for dance videos alongside a new benchmark dataset.
- SMNNet: Spatial-temporal Multimodal Network for Gesture Recognition** *2019*
[Code: [azuxmiroy/SMNet](#)] [PDF]
 - Developed a model of end-to-end multimodal gesture recognition with an accuracy of 91.2%.
- FPVSum: First-Person Video Summarization dataset** *2018*
[Code: [azuxmiroy/fpvsum](#)] [PDF]
 - Contributed an evaluation benchmark and annotation tools for first-person video summarization.

TECHNICAL SKILLS

Programming	Python, C/C++, MATLAB
Scientific Libraries	TensorFlow, PyTorch, OpenCV, NumPy, Libigl
Software & Tools	Linux OS, Git, L ^A T _E X, HTML & CSS, Blender, Docker
Domain Knowledge	Neural rendering, Pose estimation, Person re-ID, Human modelling General computer vision tasks and deep learning architectures

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*

REFERENCES

Available upon request