

HAODONG DUAN

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EDUCATION

Peking University, Beijing 2015 – 2019

Undergraduate in Data Science

- GPA 3.77/4.00, rank 1st in Data Science students
- challenging CS courses taken such as Practice of Programming in C&C++ (Honor Track), Data Structure & Algorithms (Honor track), Operating System practicum (Honor track)
- good background of mathematics and machine learning, has taken mathematical analysis, statistics, combinatorics, etc. (all for math majored students)

Chinese University of HongKong, HongKong 2019 – Present

Master of Philosophy in Information Engineering

RESEARCH PROJECTS

Triplet Representation for Human Body 2018 – 2019

- Design a novel triplet representation named TRB to represent 2D human body, which includes both human pose and shape information. TRB consists of skeleton keypoints and contour keypoints.
- Propose an algorithm for TRB estimation, which exploits the mutual information between skeleton and contour, surpasses current algorithms on skeleton keypoint estimation.
- Use TRB for human shape editing, decent result is achieved.

Omni-sourced Webly-supervised Video Recognition 2019

- Propose a framework for webly supervised video recognition, which can utilize various kinds of web medias, including images, trimmed videos, untrimmed videos for trimmed video recognition.
- Design different transformation for different type of data: inflating image to clip with different augmentations, sampling clips from untrimmed videos with different strategies.
- On Kinetics400, achieve 2.5% and 4.0% top1 accuracy improvement respectively on TSN2D and 3DConvNet(both with resnet50 backbone). Achieve over 83% top1 acc on Kinetics400 with SOTA algorithm and our framework.

PROJECTS

- One of the developers of [MMAction](#), have reproduced various algorithms for video recognition.

PUBLICATIONS

Haodong Duan, Kwanyee Lin, Sheng Jin, Wentao Liu, Chen Qian, Wanli Ouyang

TRB: A Novel Triplet Representation for Understanding 2D Human Body [[Paper](#)] [[Dataset](#)]

Accepted by ICCV 2019 as oral presentation.

TA EXPERIENCE

- TA of 'Introduction to Computer System' (PKU CS compulsory course) in the autumn semester 2017.
- TA of 'Multi-variable Calculus' (CUHK ENGG1130) in the spring semester 2020.

SKILLS

- **Proficient in** C, C++, Python.
- **Proficient in** Data Structure, Algorithm.
- **Interested in** Machine Learning, Deep Learning, Computer Vision.
- **Familiar with** Pytorch, Caffe, Linux, MATLAB, L^AT_EX, git.

LANGUAGE SKILLS

- TOEFL iBT test: 104pt (Reading: 30, Listening: 28, Speaking: 20, Writing: 26)
- GRE test: 322pt (Verbal: 152, Quantitative: 170)

HONORS AND AWARDS

Merit Student of Peking University	2016.9
Huirong Li Scholarship (Top 5% in the program)	2016.10
Merit Student of Peking University	2017.9
FangZheng Scholarship (Top 5% in the program)	2017.10