DONGDONG YU

ByteDance AI Lab

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EDUCATION

Doctor of Philosophy in Pattern Recognition and Intelligent Systems, **Institute of Automation, Chinese Academy of Sciences**, Supervised by Prof. Jie Tian and Prof. Ruwei Dai   2012-2017

Bachelor of Engineering in Pattern Recognition and Intelligent Systems , **Xi'an Jiao Tong University**   2008-2012

WORK EXPERIENCE

ByteDance AI Lab   April 2018 - Now

· Research on Human Parsing, Video Segmentation, and Multi-person Pose Estimation.

SAIT: Samsung Advanced Institute of Technology   July 2017 - March 2018

· Research on Human Parsing and Multi-person Pose Estimation.

AWARDS

· Our team (ByteDance-SEU) obtained the **5th place** of COCO Keypoint Detection in the COCO + Mapillary Joint Challenge.(ECCV 2018)

· Our team (Miracle) obtained the **5th place** of Multi-Person Pose Estimation in the PoseTrack Challenge.(ECCV 2018)

· Our team (Miracle) obtained the **3rd place** of Multi-Person Pose Tracking in the PoseTrack Challenge.(ECCV 2018)

· Our team (ByteDance-SEU) obtained the **2nd place** of Single-Person Human Pose Estimation Track in the Visual Understanding of Humans in Crowd Scene and the 2nd Look Into Person (LIP) Challenge.(CVPR 2018)

· Our team (TeamVia) obtained the **8th place** of Semi-Supervised Video Segmentation in the DAVIS Challenge on Video Object Segmentation.(CVPR 2018)

PROJECTS

Multi-person Pose Estimation   SAIT and ByteDance AI Lab, 2017.07 - Now

· Propose a network to focus on ******, which is submitted to Conference Now.

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Both Methods have achieve state-of-the-art performance on COCO keypoint benchmark.

Video Segmentation   ByteDance AI Lab, 2018.04 - Now

· Implement a classic video segmentation method (OSVOS).

· Stretch the DeepLabv3+ (image Segmentation) to video segmentation with the mask propagation method.

· Implement Mask-RCNN to refine the segmentation performance.

Human Pose Re-targeting   ByteDance AI Lab, 2018.10 - Now

· Extract the body keypoint (25 keypoints), hand keypoints (2*21 keypoints), face keypoints (60 keypoints) for each person.

· Use a Pix2PixHD framework to learn the model form person pose to person image.

· Add the FaceGAN and FlowNet into the framework, to refine the facial expression and smooth spatio-temporal.

Human Parsing SAIT, 2017.07 - 2018.04

· Implement the DeepLabv3+ and PSPNet to parse the human.

· Implement the SyncBN in the network.

CONFERENCES

· Jia Sun, **Dongdong Yu**, Yinghong Li, Changhu Wang. Mask Propagation Network for Video Object Segmentation. ***CVPRW, 2018***.

· **Dongdong Yu**, Mu Zhou, Feng Yang, Di Dong, Olivier Gevaert, Zaiyi Liu, Jingyun Shi, Jie Tian. Convolutional Neural Networks for Predicting Molecular Profiles of Non-small Cell Lung Cancer. ***ISBI, 2017***.

· **Dongdong Yu**, Yali Zang, Di Dong, Mu Zhou, Olivier Gevaert, Mengjie Fang, Jingyun Shi, Jie Tian. Developing a Radiomics Framework for Classifying Non-small Cell Lung Carcinoma Subtypes. ***SPIEMI, 2017***.

· Xiaonan Wan, **Dongdong Yu,** Feng Yang, Caiyun Yang, Chengcai Leng, Min Xu, Jie Tian. A New Region Descriptor for Multi-modal Medical Image Registration and Region Detection. ***EMBC, 2015***.

JOURNALS

· Shuo Wang, Jingyun Shi, Zhaoxiang Ye, Di Dong, **Dongdong Yu**, Mu Zhou, Ying Liu, Olivier Gevaert, Kun Wang, Yongbei Zhu, Hongyu Zhou, Zhenyu Liu, Jie Tian. Predicting EGFR Mutation Status in Lung Adenocarcinoma on CT Image Using Deep Learning. ***European Respiratory Journal, 2019.***

· Wei Shen, Mu Zhou, Feng Yang, **Dongdong Yu**, Di Dong, Caiyun Yang, Yali Zang, Jie Tian. Multi-crop Convolutional Neural Networks for Lung Nodule Malignancy Suspiciousness Classi cation. ***Pattern Recognition, Volume 61, Pages 663-673, 2017***.

· **Dongdong Yu**, Feng Yang, Caiyun Yang, Chengcai Leng, Jian Cao, Yining Wang, Jie Tian. Fast Rotation-Free Feature-Based Image Registration Using Improved N-SIFT and GMM-Based Parallel Optimization. ***IEEE Transactions on Biomedical Engineering, Volume 63, Pages 1653-1664, 2016***.

· Xinzhong Zhu, Di Dong, Zhendong Chen, Mengjie Fang, Liwen Zhang, Jiangdian Song, **Dongdong Yu**, Yali Zang, Zhenyu Liu, Jingyun Shi, Jie Tian. Radiomic Signature as a Diagnostic Factor for Histologic Subtype Classification of Non-small Cell Lung Cancer. ***European Radiology, Volume 28, Issue 7, Pages 2772-2778, 2018***.

· Zhenchao Tang, Zhenyu Liu, Ruili Li, Xin Yang, Xingwei Cui, Shuo Wang, **Dongdong Yu**, Hongjun Li, Enqing Dong, Jie Tian. Identifying the White Matter Impairments among ART-naïve HIV Patients: a Multivariate Pattern Analysis of DTI Data. ***European Radiology, Volume 27, Issue 10, Pages 4153-4162, 2016***.

· Chengcai Leng, Guorong Cai, **Dongdong Yu**, Zongyue Wang. Adaptive Total-Variation for Non-Negative Matrix Factorization on Manifold. ***Pattern Recognition Letters, Volume 98, Pages 68-74, 2017***.

· Chengcai Leng, **Dongdong Yu**, Shuang Zhang, Yu An, Yifang Hu. Reconstruction Method for Optical Tomography Based on the Linearized Bregman Iteration with Sparse Regularization. ***Computational and Mathematical Methods in Medicine, Volume 2015, Article ID 304191, 8 pages, 2015***.