Zilong Huang

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EDUCATION

Huazhong University of Science and Technology **Wuhan, China**
Ph.D. student in Computer Vision and Machine Learning *2016–2020 (excepted)*
Advisor: Wenyu Liu, Xinggang Wang

University of Illinois at Urbana-Champaign **Urbana, USA**
Visiting Ph.D. student in Computer Vision and Machine Learning *2018–2019 (excepted)*
Advisor: Thomas Huang

Huazhong University of Science and Technology **Wuhan, China**
Master student in Electronic Information Engineering *2015–2016*
Advisor: Wenyu Liu, Xinggang Wang

Huazhong University of Science and Technology **Wuhan, China**
B.S. in Electronic Information Engineering *2011–2015*
Dian Group, Seed Class

RESEARCH INTERESTS

Deep learning, semantic segmentation in images/videos, object detection, weakly supervised learning

PUBLICATIONS

Semantic Image Segmentation by Scale-Adaptive Networks. TIP 2019.
Zilong Huang, *Chunyu Wang, Xinggang Wang, Wenyu Liu, Jingdong Wang.*

Proposal,Tracking and Segmentation: A Cascaded Network for Video Object Segmentation.ArXiv2019
Zilong Huang*, *Qiang Zhou*, Xinggang Wang, Yongchao Gong, Han Shen, Lichao Huang, Chang Huang, Wenyu Liu.*
Ranked No. 2 of Youtube Video Object Segmentation Challenge 2018.

CCNet: Criss-Cross Attention for Semantic Segmentation. ICCV 2019.
Zilong Huang, *Xinggang Wang, Lichao Huang, Chang Huang, Yunchao Wei, Wenyu Liu.*

SPGNet: Semantic Prediction Guidance for Scene Parsing. ICCV 2019.
Bowen Cheng, Liang-Chieh Chen, Yunchao Wei, Yukun Zhu, ***Zilong Huang****, Jinjun Xiong, Thomas Huang, Wen-Mei Hwu, Honghui Shi.*

Devil in the Details: Towards Accurate Single and Multiple Human Parsing. AAAI 2019.
Tao Ruan, Ting Liu*,* ***Zilong Huang****, Yunchao Wei, Shikui Wei, Yao Zhao, Thomas Huang.*
Ranked No. 1 on all human paring tracks in the 2nd LIP Challenge 2018.

A PyTorch Semantic Segmentation Toolbox. Technical report 2018.
Zilong Huang, *Yunchao Wei, Xinggang Wang, Wenyu Liu.*

Weakly-supervised semantic segmentation network with deep seeded region growing. CVPR 2018.
Zilong Huang, *Xinggang Wang, Jiasi Wang, Wenyu Liu, Jingdong Wang.*

Object-level proposals. ICCV 2017.
Jianxiang Ma, Anlong Ming, ***Zilong Huang****, Xinggang Wang, Yu Zhou.*

Deep patch learning for weakly supervised object classification and discovery. PR 2017.
Peng Tang, Xinggang Wang, ***Zilong Huang****, Xiang Bai, Wenyu Liu.*

Point linking network for object detection. ArXiv 2017.
Xinggang Wang, Kaibing Chen, ***Zilong Huang****, Cong Yao, Wenyu Liu.*

EXPERIENCEs

Horizon Robotics **Beijing, China**
Research Intern (Algorithm Platform) *Mar 2018 - Sep 2018*
Mentor: Lichao Huang

Microsoft Research Asia (MSRA) **Beijing, China**
Research Intern (Internet Media group) *Mar 2016 - Oct 2016*
Mentor: Jingdong Wang, Chunyu Wang

Media and Communication Lab, HUST **Wuhan, China**
Research Assistant *Sep 2015 - Mar 2016*
Mentor: Wenyu Liu, Xinggang Wang

ACADEMIC ACTIVITIES

- ECCV18 Large-scale Video Object Segmentation Challenge Workshop talk: "Proposal Tracking and Segmentation (PTS): A cascaded network for video object segmentation", 2018.
- VALSE Pixel Level Image Understanding Workshop talk: "Weakly-Supervised Semantic Segmentation Network with Deep Seeded Region Growing", 2018.
- Reviewer for the following journals/conferences: TIP/TCSVT/Neurocomputing/CVPR 2019/ICCV 2019.
- Member of the Program Committee (PC) for AAAI-2020.

AWARDS AND ACHIEVEMENTS

- 2nd Place in the 2st Large-scale Video Object Segmentation Challenge Workshop in conjunction with ICCV 2019, Seoul, Korea. Oct. 2019.
- 2nd Place in the 1st Large-scale Video Object Segmentation Challenge Workshop in conjunction with ECCV 2018, Munich, Germany. Sep. 2018.
- Merit Award (Top 20/843) of Alibaba Large-scale Image Search Challenge, Dec. 2015.
- Outstanding Graduate, HUST, 2015.

SKILLS

- **Programming**: Reasonably familiar with Python, Java, C/C++ and CUDA. Good spirit of open source with >1.5k stars in Github.
- **Computer vision and machine learning**: Familiar with several CV/ML algorithms including semantic segmentation, object detection/recognition, pose estimation, video object segmentation and convolutional neural networks. Proficient in deep learning framework Caffe and Pytorch, as well as general purpose libraries including OpenCV, scikit-learn and VLFeat.
- **Natural languages**: Mandarin (Native); English (Familiar).