## Yingwei Li

Contact

Department of Computer Science

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RESEARCH

Interests

My research interests mainly lay in computer vision. Currently I am working on adversarial attack and defense [1,4,5,6,7], medical image processing [1,2,3], and neural architecture search [8,9]. I am always open to new topics.

**EDUCATION** 

Johns Hopkins University

2018 - present

Ph.D. in Department of Computer Science

Advisor: Alan Yuille

Johns Hopkins University

Summer 2017

Visiting undergraduate student Host: Alan Yuille

National Taiwan University

Spring 2017

Exchange student in Computer Science and Information Engineering

GPA: 4.0

**Fudan University** 

2014 - 2018

B.S. in Computer Science, Honor Class

EXPERIENCE

## ByteDance AI Lab, Palo Alto, CA

Summer & fall 2019

Research Intern

Working on neural architecture search and lightweight deep learning model.

Mentors: Xiaojie Jin, Xiaochen Lian, Linjie Yang

Johns Hopkins University, Baltimore, MD

2018 - present

Research Assistant

Doing research on medical image processing, adversarial attack and defense.

TuSimple, Beijing, China

Summer 2016

Research Intern

Working on multiple object tracking.

Mentor: Naiyan Wang

**PUBLICATIONS** 

[1] Yingwei Li\*, Zhuotun Zhu\*, Yuyin Zhou, Yingda Xia, Wei Shen, Elliot K.Fishman, and Alan L. Yuille. 2019. Volumetric Medical Image Segmentation: A 3D Deep Coarse-to-fine Framework and Its Adversarial Examples. In Deep Learning and Convolutional Neural Networks for Medical Image Computing, Advances in Computer Vision and Pattern Recognition, Springer, ISBN 978-3-030-13968-1.

[2] Yuyin Zhou, Yingwei Li, Zhishuai Zhang, Yan Wang, Angtian Wang, Elliot K. Fishman, Alan Yuille, Seyoun Park. 2019. Hyper-Pairing Network for Multi-Phase Pancreatic Ductal Adenocarcinoma Segmentation. In Proceedings of the International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2019). Springer, Shenzhen, China.

- [3] Yuyin Zhou, David Dreizin, **Yingwei Li**, Zhishuai Zhang, Yan Wang, Alan Yuille. 2019. Multi-Scale Attentional Network for Multi-Focal Segmentation of Active Bleed after Pelvic Fractures. In Proceedings of 10th International Workshop on Machine Learning in Medical Imaging (MLMI 2019). Springer, Shenzhen, China.
- [4] Ziqi Zhang, Xinge Zhu, **Yingwei Li**, Yao Guo, Xiangqun Chen, Dahua Lin. 2019. Adversarial Attacks on Monocular Depth Estimation. In *submission*.
- [5] **Yingwei Li**, Song Bai, Cihang Xie, Zhenyu Liao, Xiaohui Shen, Alan Yuille. 2019. Regional Homogeneity: Towards Learning Transferable Universal Adversarial Perturbations Against Defenses. *CoRR*, *abs/1904.00979*.
- [6] Yingwei Li, Song Bai, Yuyin Zhou, Cihang Xie, Zhishuai Zhang, Alan Yuille. 2020. Learning Transferable Adversarial Examples via Ghost Networks. In proceedings of *The Thirty-Fourth AAAI Conference on Artificial Intelligence* (AAAI 2020). AAAI Press, New York, USA.
- [7] Song Bai, **Yingwei Li**, Yuyin Zhou, Qizhu Li, Philip H.S. Torr. 2019. Adversarial Metric Attack for Person Re-identification. *CoRR*, *abs/1901.10650*.
- [8] Yingwei Li, Xiaojie Jin, Jieru Mei, Xiaochen Lian, Linjie Yang, Cihang Xie, Qihang Yu, Yuyin Zhou, Song Bai, Alan Yuille. 2019. Lightweight Self-Attention Module: Manual Design and Auto-Search. In *submission*.
- [9] Jieru Mei, **Yingwei Li**, Xiaochen Lian, Xiaojie Jin, Linjie Yang, Alan Yuille, Jianchao Yang. 2020. AtomNAS: Fine-Grained End-to-End Neural Architecture Search. In Proceeding of *International Conference on Learning Representations* (ICLR 2020).

Awards

| First Prize Scholarship from Fudan University Education Development Foundation | 2017 |
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| SCSK Scholarship   | 2016 |
| Second Prize, Shanghai College Student Mathematical Contest in Modeling        | 2015 |
| Silver Medal, ACM-ICPC Shanghai Regional Contest                               | 2014 |
| Bronze Medal, China National Olympiad in Informatics                           | 2013 |

## MISCELLANEOUS

Programming Languages: Python, Matlab, C/C++, LATEX Deep Learning Tools: Tensorflow, PyTorch