Yingwei Li

Contact Information

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Research Interests

My research interests mainly lay in computer vision. Currently I am working on robust representation learning [3,4,6,9,10,11,13], medical machine intelligence [1,2,3,5], autonomous driving [4,12,13], and automated machine learning [5,7,8]. I am always open to new topics.

Education

Johns Hopkins University 2018 - present
Ph.D. in Computer Science
Advisor: 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

Waymo LLC, Remote 05/2020 - 11/2020
Software Engineering Intern
Mentors: Tiffany Yu-Han Chen, Maya Kabkab, Ruichi Yu, Hang Zhao

ByteDance AI Lab, Palo Alto, CA 05/2019 - 11/2019
Research Intern
Mentors: Xiaojie Jin, Xiaochen Lian, Linjie Yang

Johns Hopkins University, Baltimore, MD Summer 2017
Research Assistant & 08/2018 - present
Advisor: Alan Yuille

TuSimple, Beijing, China Summer 2016
Research Intern
Mentor: Naiyan Wang

Publications

[13] **Yingwei Li**, Tiffany Chen, Maya Kabkab, Ruichi Yu, Longlong Jing, Yurong You, Hang Zhao. R4D: Utilizing Reference Objects for Long-Range Distance Estimation. *In submission.*

[12] Longlong Jing, Ruichi Yu, Jiyang Gao, Henrik Kretzschmar, Kang Li, Charles R. Qi, Hang Zhao, Alper Ayvaci, Xu Chen, Dillon Cower, **Yingwei Li**, Yurong You, Han Deng, Congcong Li, Dragomir Anguelov. Depth Matters Most: Improving Per-Object Depth Estimation for Monocular 3D Detection and Tracking. *In submission.*

[11] **Yingwei Li**, Qihang Yu, Mingxing Tan, Jieru Mei, Peng Tang, Wei Shen, Alan Yuille, Cihang Xie. Shape-Texture Debiased Neural Network Training. *CoRR, abs/2010.05981.*

[10] Song Bai, **Yingwei Li**, Yuyin Zhou, Qizhu Li, Philip H.S. Torr. Adversarial Metric Attack for Person Re-identification. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2020.

[9] **Yingwei Li**, Song Bai, Cihang Xie, Zhenyu Liao, Xiaohui Shen, Alan Yuille. Regional Homogeneity: Towards Learning Transferable Universal Adversarial Perturbations Against Defenses. In Proceeding of *European Conference on Computer Vision* (ECCV), Springer, 2020.

[8] **Yingwei Li**, Xiaojie Jin, Jieru Mei, Xiaochen Lian, Linjie Yang, Cihang Xie, Qihang Yu, Yuyin Zhou, Song Bai, Alan Yuille. Neural Architecture Search for Lightweight Non-Local Networks. In Proceeding of *Conference on Computer Vision and Pattern Recognition* (CVPR), IEEE, 2020.

[7] Jieru Mei, **Yingwei Li**, Xiaochen Lian, Xiaojie Jin, Linjie Yang, Alan Yuille, Jianchao Yang. AtomNAS: Fine-Grained End-to-End Neural Architecture Search. In *International Conference on Learning Representations* (ICLR), 2020.

[6] **Yingwei Li**, Song Bai, Yuyin Zhou, Cihang Xie, Zhishuai Zhang, Alan Yuille. Learning Transferable Adversarial Examples via Ghost Networks. In Proceedings of *The Thirty-Fourth AAAI Conference on Artificial Intelligence* (AAAI). AAAI Press, 2020.

[5] Qihang Yu, **Yingwei Li**, Jieru Mei, Yuyin Zhou, Alan L. Yuille. CAKES: Channel-wise Automatic KErnel Shrinking for Efficient 3D Network. *CoRR, abs/2003.12798*.

[4] Ziqi Zhang, Xinge Zhu, **Yingwei Li**, Yao Guo, Xiangqun Chen, Dahua Lin. Adversarial Attacks on Monocular Depth Estimation. *CoRR, abs/2003.10315*.

[3] **Yingwei Li***, Zhuotun Zhu*, Yuyin Zhou, Yingda Xia, Wei Shen, Elliot K.Fishman, and Alan L. Yuille. 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 (* equally contribution), 2019.

[2] Yuyin Zhou, **Yingwei Li**, Zhishuai Zhang, Yan Wang, Angtian Wang, Elliot K. Fishman, Alan Yuille, Seyoun Park. 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). Springer, 2019.

[1] Yuyin Zhou, David Dreizin, **Yingwei Li**, Zhishuai Zhang, Yan Wang, Alan Yuille. 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, workshop of MICCAI). Springer, 2019.

Talks

Learning Transferable Adversarial Examples via Ghost Networks

- AdvML Workshop @ CVPR 2019 — June, 2019
- The Thirty-Fourth AAAI Conference on Artificial Intelligence — Feb, 2020

Neural Architecture Search for Lightweight Non-Local Networks

- Kwai Silicon Valley Lab — May, 2020

Selected Awards

ICLR Travel Award	2020
First Prize Scholarship from Fudan University Education Development Foundation	2017
SCSK Scholarship	2016
Silver Medal, ACM-ICPC Shanghai Regional Contest	2014
Bronze Medal, China National Olympiad in Informatics	2013

Workshop	**Adversarial Robustness in the Real World, ECCV 2020** Organizers: Adam Kortylewski, Cihang Xie, Song Bai, Zhaowei Cai, **Yingwei Li**, Andrei Barbu, Wieland Brendel, Nuno Vasconcelos, Andrea Vedaldi, Philip Torr, Rama Chellappa, Alan Yuille Website: `https://eccv20-adv-workshop.github.io/`
Service	Reviewer for IEEE TDSC, Neurocomputing, Pattern Recognition, AAAI 2021, IJCAI 2021, CVPR 2021.
Skills	Python, TensorFlow and PyTorch (for research projects); C/C++ (for ACM-ICPC contests).