

# Hengduo Li

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## EDUCATION

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<b>University of Maryland</b> <i>Ph.D. Candidate, Department of Computer Science. Advisor: Larry S. Davis.</i>	Sep. 2018 – Present College Park, MD
<b>Fudan University</b> <i>B.E., Department of Electronic Engineering.</i>	Sep. 2014 – June 2018 Shanghai, CN
<b>Nanyang Technological University</b> <i>Visiting Student, School of Electrical and Electronic Engineering</i>	Aug. 2016 – Dec. 2016 Singapore

## RESEARCH EXPERIENCE

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<b>University of Maryland</b> <i>Research Assistant. Advisor: Prof. Larry S. Davis.</i>	Sep. 2018 – Present <i>Computer vision, Deep Learning</i>
<b>Argo AI</b> <i>Research Intern. Mentor: Prof. James Hays.</i>	June 2021 – Aug. 2021 <i>3D Object Detection</i>
<b>AWS Rekognition</b> <i>Research Intern. Mentors: Joseph Tighe, Davide Modolo, Kaustav Kundu.</i>	June 2020 – Aug. 2020 <i>Video Recognition</i>
<b>Salesforce Research</b> <i>Research Intern. Mentors: Caiming Xiong, Chetan Ramaiah.</i>	June 2019 – Aug. 2019 <i>Object Detection.</i>
<b>Nanyang Technological University</b> <i>Research Assistant. Advisor: Prof. Gang Wang.</i>	July 2016 – Dec. 2016 <i>Pedestrian Detection.</i>

## PUBLICATIONS

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Note: \* denotes equal contribution.

*Rethinking Pseudo Labels for Semi-Supervised Object Detection.*

**Hengduo Li**, Zuxuan Wu, Abhinav Shrivastava, Larry S. Davis  
arXiv preprint, **in submission**.

*HMS: Hierarchical Modality Selection for Efficient Video Recognition.*

ZeJia Weng, Zuxuan Wu, **Hengduo Li**, Yu-Gang Jiang  
arXiv preprint, **in submission**.

*2D or not 2D? Adaptive 3D Convolution Selection for Efficient Video Recognition.*

**Hengduo Li**, Zuxuan Wu, Abhinav Shrivastava, Larry S. Davis  
Conference on Computer Vision and Pattern Recognition (**CVPR**), 2021.

*A Coarse-to-Fine Framework for Resource Efficient Video Recognition.*

Zuxuan Wu, **Hengduo Li**, Yingbin Zheng, Caiming Xiong, Yu-Gang Jiang, Larry S. Davis  
International Journal of Computer Vision (**IJCV**), 2021

*Learning from Noisy Anchors for One-stage Object Detection.*

**Hengduo Li**, Zuxuan Wu, Chen Zhu, Caiming Xiong, Richard Socher, Larry S. Davis  
Conference on Computer Vision and Pattern Recognition (**CVPR**), 2020.

*A Dynamic Frame Selection Framework for Fast Video Recognition.*

Zuxuan Wu, **Hengduo Li**, Caiming Xiong, Yugang Jiang, Larry S. Davis  
IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2020.

*An Analysis of Pre-training on Object Detection.*

**Hengduo Li**, Bharat Singh, Mahyar Najibi, Zuxuan Wu, Larry S. Davis  
arXiv preprint, **in submission**.

*Transferable clean-label poisoning attacks on deep neural nets.*

Chen Zhu, W Ronny Huang, Ali Shafahi, **Hengduo Li**, Gavin Taylor, Christoph Studer, Tom Goldstein  
International Conference on Machine Learning (**ICML**), 2019.

*R-FCN-3000 at 30fps: Decoupling Detection and Classification.*

Bharat Singh\*, **Hengduo Li**\*, Abhishek Sharma, Larry S. Davis  
Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018.

*Multi-Glimpse LSTM with Color-Depth Feature Fusion for Human Detection.*

**Hengduo Li**, Jun Liu, Guyue Zhang, Yuan Gao, Yirui Wu  
International Conference on Image Processing (**ICIP**), 2017 (oral).

*Joint Human Detection and Head Pose Estimation via Multi-Stream Networks for RGB-D Video.*

Guyue Zhang, Jun Liu, **Hengduo Li**, Yanqiu Chen, Larry S. Davis  
IEEE Signal Processing Letters, (**SPL**), 2017.

## AWARDS

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Dean's Fellowship, University of Maryland, Department of Computer Science, 2018 and 2019.

1st place in Nexar Challenge II Vehicle Detection, ICCV 2017.

TF-LEARN Scholarship, Nanyang Technological University, 2016.

Outstanding Student Scholarship, Fudan University, 2015 and 2016.

## SKILLS

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**Languages:** Python, C/C++, Lua, MATLAB

**Frameworks and Tools:** PyTorch, MXNet, TensorFlow, Git, L<sup>A</sup>T<sub>E</sub>X, OpenCV