

EDUCATION

- Ph.D., Computer Science**, Georgia Tech August 2017 - Now
Advisor: Prof. Devi Parikh
- Ph.D., Computer Engineering (Transferred)**, Virginia Tech August 2015 - August 2017
Advisor: Prof. Devi Parikh
- M.S., Computer Science**, University at Buffalo August 2013 - June 2015
Advisor: Prof. Jason Corso
- B.E., Electrical Engineering**, Nanjing Univ. of Posts and Telecom August 2009 - June 2013

RESEARCH INTERESTS

Interests Computer Vision, Natural Language Processing, Deep Learning

PUBLICATIONS

1. Michael Cogswell, **Jiasen Lu**, Stefan Lee, Devi Parikh, Dhruv Batra. “**Emergence of Compositional Language with Deep Generational Transmission**” arXiv preprint arXiv:1904.09067
2. **Jiasen Lu**, Dhruv Batra, Devi Parikh, Stefan Lee, “**ViLBERT: Pretraining Task-Agnostic Visiolinguistic Representations for Vision-and-Language Tasks**” Neural Information Processing Systems (NeurIPS) 2019
3. Chih-Yao Ma, **Jiasen Lu**, Zuxuan Wu, Ghassan AlRegib, Zsolt Kira, Richard Socher, Caiming Xiong. “**Self-Monitoring Navigation Agent via Auxiliary Progress Estimation**” International Conference on Learning Representations (ICLR), 2019
4. Jianwei Yang*, **Jiasen Lu***, Stefan Lee, Dhruv Batra, Devi Parikh. “**Learning to Ask Questions to Learn Visual Recognition**” Conference on Robotic Learning (CORL) 2018 **Oral Presentation**
5. Jianwei Yang*, **Jiasen Lu***, Stefan Lee, Dhruv Batra, Devi Parikh. “**Graph R-CNN for Scene Graph Generation**” European conference on computer vision (ECCV) 2018
6. **Jiasen Lu***, Jianwei Yang*, Dhruv Batra, Devi Parikh. “**Neural Baby Talk**” Conference on Computer Vision and Pattern Recognition (CVPR) 2018 **Spotlight Presentation**
7. **Jiasen Lu**, Anitha Kannan, Jianwei Yang, Devi Parikh, Dhruv Batra. “**Best of Both Worlds: Transferring Knowledge from Discriminative Learning to a Generative Visual Dialog Model**” Neural Information Processing Systems (NIPS) 2017
8. Alexander H. Miller, Will Feng, Adam Fisch, **Jiasen Lu**, Dhruv Batra, Antoine Bordes, Devi Parikh, Jason Weston. “**ParLAI: A Dialog Research Software Platform**” Empirical Methods in Natural Language Processing (EMNLP 2017)
9. **Jiasen Lu***, Caiming Xiong*, Devi Parikh, Richard Socher. “**Knowing When to Look: Adaptive Attention via A Visual Sentinel for Image Captioning**” Conference on Computer Vision and Pattern Recognition (CVPR) 2017 **Spotlight Presentation**
10. Aishwarya Agrawal*, **Jiasen Lu***, Stanislaw Antol*, Margaret Mitchell, C. Lawrence Zitnick, Devi Parikh, Dhruv Batra. “**VQA: Visual Question Answering**” International Journal of Computer Vision (IJCV)
11. **Jiasen Lu**, Jianwei Yang, Dhruv Batra, Devi Parikh. “**Hierarchical Question-Image Co-Attention for Visual Question Answering**” Neural Information Processing Systems (NIPS) 2016

12. Stanislaw Antol*, Aishwarya Agrawal*, **Jiasen Lu**, Margaret Mitchell, Dhruv Batra, C. Lawrence Zitnick, Devi Parikh. “**VQA: Visual Question Answering.**” International Conference on Computer Vision (ICCV 2015)
13. **Jiasen Lu**, Ran Xu and Jason J. Corso, “**Human Action Segmentation With Hierarchical Super-voxel Consistency**” Conference on Computer Vision and Pattern Recognition (CVPR) 2015
14. Ran Xu, **Jiasen Lu**, Caiming Xiong, Zhi Yang, Jason J. Corso. “**Improving Word Representations via Global Visual Context**” NIPS Workshop on Learning Semantics 2014
15. **Jiasen Lu**. “**A Novel Grid Based Ant Colony Routing in Mobile Ad Hoc Networks**” International Conference on Wireless Communications, Networking and Mobile Computing 2012
16. Xiao-Yuan Jing, Sheng Li, Wen-Qian Li, Yong-Fang Yao, Chao Lan, **Jiasen Lu**, Jing-Yu Yang. “**Palmprint and face multi-modal biometric recognition based on SDA-GSVD and its kernelization**” Sensors, 2012
17. Xiaoyuan Jing, Sheng Li, Songhao Zhu, Qian Liu, Jingyu Yang, **Jiasen Lu**. “**Supervised local sparsity preserving projection for face feature extraction**” The First Asian Conference on Pattern Recognition, 2011

TALKS

1. “Neural Baby Talk”, Spotlight Talk, CVPR 2018. Salt Lake City, USA.
2. “Best of Both Worlds: Transferring Knowledge from Discriminative Learning to a Generative Visual Dialog Model”, Invited Talk, NIPS Highlight Workshop, 2017, USA.
3. “Knowing when to look, Adaptive Attention via A Visual Sentinel for Image Captioning”, Spotlight Talk, CVPR 2016. Honolulu, USA.

OPEN SOURCE IMPLENMETATIONS

- | | |
|--|-------------------------------|
| <p>A Faster Pytorch Implementation of Faster R-CNN <i>Georgia Tech</i></p> <ul style="list-style-type: none"> · Implemented a faster version of faster r-cnn based on Pytorch. · Over 3.8K stars on Github. | <p>Jun 2017 - Sept 2017</p> |
| <p>Implementation of (Convolutional) Deep Structured Semantic Model <i>Virginia Tech</i></p> <ul style="list-style-type: none"> · Reproduced (Convolutional) Deep Structured Semantic Model (CDSMM) in Torch | <p>Aug. 2015 - Sept. 2015</p> |

WORK EXPERIENCE

- | | |
|---|--|
| <p>Graduate Research Assistant <i>Georgia Tech</i></p> <ul style="list-style-type: none"> · Research on Object Detection, Graph Detection, Visual Question Answering and Image Captioning Algorithms | <p>August 2017 - Present <i>Advisor: Prof. Devi Parikh</i></p> |
| <p>Research Intern <i>Salseforce Research, Palo Alto</i></p> <ul style="list-style-type: none"> · Worked on multi-task learning for variaties of vision and language tasks. | <p>Jun 2018 - Aug 2018 <i>Mentor: Caiming Xiong</i></p> |
| <p>Research Intern <i>Facebook AI Research, Menlo Park</i></p> <ul style="list-style-type: none"> · Research on Generative Adversarial Network in language domain. · Develop Novel algorithms on Visual Dialog | <p>Feb 2017 - May 2017 <i>Mentor: Prof. Dhruv Batra</i></p> |

Research Intern
Meta Mind, Palo Alto

Jun 2016 - Aug 2016
Mentor: Caiming Xiong, Richard Socher

- Worked on vision and language research task such as image caption, visual story telling.
- Developed novel image caption method which is better than state-of-the-art results.

Teaching Assistant
Virginia Tech

Feb 2015 - May 2015
Instructor: Prof Devi Parikh

- Teaching Assistant for ECE 6554 Advanced Computer Vision.

Teaching Assistant
Virginia Tech

Sept 2015 - Dec 2015
Instructor: Prof Devi Parikh

- Teaching Assistant for ECE 5554 Computer Vision.
- Responsibilities included prepare and grade the homework, office hour etc.

ACTIVITIES

1. **Reviewer** for Neural Information Processing Systems (NIPS) 2016 - 2019
2. **Reviewer** for European Conference on Computer Vision and Pattern Recognition (ECCV) 2018
3. **Reviewer** for International Conference on Computer Vision (ICCV) 2017-2019
4. **Reviewer** for International Conference on Learning Representations (ICLR) 2017-2019
5. **Reviewer** for Association for the Advancement of Artificial Intelligence (AAAI) 2018-2019
6. **Reviewer** for International Conference on Artificial Intelligence and Statistics (AISTATS) 2019
7. **Reviewer** IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) 2019
8. **Reviewer** International Journal of Computer Vision (IJCV) 2017
9. **Reviewer** IEEE Transactions on Multimedia (TMM) 2017-2019
10. **Organizer** for VQA Challenge Workshop at (CVPR) 2016-2017
11. **Volunteer** for Conference on Computer Vision and Pattern Recognition (CVPR) 2015

SKILLS

Programming Language Python, Lua, Matlab, C/C++
Deep Learning Toolboxes Pytorch, Torch, Theano