

# LICHENG YU

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## EDUCATION

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<b>University of North Carolina, Chapel Hill</b> Ph.D in Computer Science, Advisor: Tamara L. Berg	<i>Fall 2014 - Spring 2019</i>
<b>Georgia Institute of Technology</b> M.S in Electrical and Computer Engineering	<i>Fall 2011 - Spring 2014</i>
<b>Shanghai Jiao Tong University</b> B.S & M.S in Information Engineering	<i>Fall 2007 - Spring 2014</i>

## RESEARCH INTEREST

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Computer Vision, Natural Language Processing

## WORK EXPERIENCE

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<b>Facebook AI, Research Scientist (Full-time)</b>	2020.03 - Now
<b>Microsoft, Researcher (Full-time)</b>	2019.07 - 2020.03
<b>Facebook AI Research, Summer Internship</b>	2018.05 - 2018.08
<b>Adobe Research, Summer Internship</b>	2017.05 - 2017.08
<b>eBay Research, Summer Internship</b>	2016.05 - 2016.08

## PUBLICATION

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1. Jie Lei, **Licheng Yu**, Tamara L. Berg, Mohit Bansal, “TVQA+: Spatio-Temporal Grounding for Video Question Answering”, in ACL 2020.
2. Yandong Li, Yu Cheng, Zhe Gan, **Licheng Yu**, Liqiang Wang, Jingjing Liu, “BachGAN: High-Resolution Image Synthesis from Salient Object Layout”, in CVPR 2020
3. Jingzhou Liu, Wenhui Chen, Yu Cheng, Zhe Gan, **Licheng Yu**, Yiming Yang, Jingjing Liu, “VIOLIN: A Large-Scale Dataset for Video-and-Language Inference”, in CVPR 2020
4. Jie Lei, **Licheng Yu**, Tamara L. Berg, Mohit Bansal, “TVR: A Large-Scale Dataset for Video-Subtitle Moment Retrieval”, arxiv:2001.09009
5. Yen-Chun Chen\*, Linjie Li\*, **Licheng Yu\***, Ahmed El Kholy, Faisal Ahmed, Zhe Gan, Yu Cheng, Jingjing Liu, “UNITER: Learning Universal Image-Text Representations”, arxiv:1909.11740 (\* denotes equal contribution)
6. **Licheng Yu**, Xinlei Chen, Georgia Gkioxari, Mohit Bansal, Tamara L. Berg, Dhruv Batra, “Multi-target Embodied Question Answering”, in CVPR 2019.
7. Hao Tan, **Licheng Yu**, Mohit Bansal, “Learning to Navigate Unseen Environments: Back Translation with Environmental Dropout”, in NAACL 2019. (Rank 1 on VLN Leaderboard)
8. Jie Lei, **Licheng Yu**, Mohit Bansal, Tamara L. Berg, “TVQA: Localized Compositional Video Question Answering”, in EMNLP 2018 (oral).
9. **Licheng Yu**, Zhe Lin, Xiaohui Shen, Jimei Yang, Xin Lu, Mohit Bansal, Tamara L. Berg, “MAttNet: Modular Attention Network for Referring Expression Comprehension”, in CVPR 2018.

10. Anja Belz, TL Berg, **Licheng Yu**, “From image to language and back again”, in JNLE 2018.
11. **Licheng Yu**, Mohit Bansal, Tamara L. Berg, “ Hierarchically-Attentive RNN for Album Summarization and Storytelling”, in EMNLP 2017.
12. **Licheng Yu**, Hao Tan, Mohit Bansal, Tamara L. Berg, “A Joint Speaker-Listener-Reinforcer Model for referring expressions.”, in CVPR 2017 (spotlight).
13. Hongteng Xu, **Licheng Yu**, Mark Davenport, Hongyuan Zha, “A unified framework for manifold landmarking”, in IEEE Transactions on Signal Processing, 2018
14. **Licheng Yu**, Patrick Poirson, Shan Yang, Alexander C. Berg, Tamara L. Berg, “Modeling Context in Referring Expressions”, in ECCV, 2016 (Spotlight)
15. Shan Yang, Zherong Pan, Tanya Ambert, Ke Wang, **Licheng Yu**, Tamara L. Berg, Ming C. Lin, “Detailed Garment Recovery from a Single-View Image”, in ACM Transactions on Graphics 2017
16. **Licheng Yu**, Eunbyung Park, Alexander C. Berg, Tamara L. Berg, “Visual Madlibs: Fill-in-the-Blank Description Generation and Question Answering”, in ICCV, 2015
17. Yi Xu, **Licheng Yu**, Hongteng Xu, Truong Nguyen, “Vector Sparse Representation of Color Image Using Quaternion Matrix Analysis.” in IEEE Transactions on Image Processing (TIP), 2015
18. **Licheng Yu\***, Hongteng Xu\*, Hongyuan Zha, Yi Xu. “Dictionary Learning with Mutually Reinforcing Group-Graph Structures.” in AAAI, 2015. (\* denotes equal contribution)
19. **Licheng Yu**, Yi Xu, Hongteng Xu, Hao Zhang, “Quaternion-based Sparse Representation of Color Image.” in ICME, 2013 (Oral)
20. **Licheng Yu**, Yi Xu, Hongteng Xu, “Self-Example Based Super-resolution with Fractal-based Gradient Enhancement.” in ICME workshop, 2013
21. **Licheng Yu**, Yi Xu, Bo Zhang, “Single Image Super-resolution via Phase Congruency Analysis.” in VCIP, 2013 (Oral)
22. **Licheng Yu**, Hongteng Xu, Yi Xu, Xiaokang Yang, “Robust Single Image Super-resolution based on Gradient Enhancement”, in Special Sessions of APSIPA 2012

## RESEARCH EXPERIENCE

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**UNC-Chapel Hill, Research Assistant**

July 2015 - Now

Question Answering, Grounding, and Generation for Vision and Language

**GeorgiaTech, Visiting Scholar**

June 2013 - December 2014

Semi-supervised structured dictionary learning

**QualComm (Shanghai), Research Student**

February 2012 - April 2013

Real-time video super-resolution synthesis

**Shanghai Jiao Tong University, Research Assistant**

October 2011 - October 2013

Quaternion-based sparse representation model for color images

## SKILLS

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**Programming  
Framework**

Python, C/C++, Lua, Matlab, Java, Javascript  
PyTorch, TensorFlow, Torch7, Caffe