LICHENG YU

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EDUCATION

University of North Carolina, Chapel Hill   *Fall 2014 - Spring 2019*
Ph.D in Computer Science, Advisor: Tamara L. Berg

Georgia Institute of Technology   *Fall 2011 - Spring 2014*
M.S in Electrical and Computer Engineering

Shanghai Jiao Tong University   *Fall 2007 - Spring 2014*
B.S & M.S in Information Engineering

WORK EXPERIENCE

Facebook AI, Research Scientist (Full-time)   *2020.03 - Now*

Microsoft, Researcher (Full-time)   *2019.07 - 2020.03*

Facebook AI Research (Summer Internship)   *2018.05 - 2018.08*

Adobe Research (Summer Internship)   *2017.05 - 2017.08*

eBay Research (Summer Internship)   *2016.05 - 2016.08*

RESEARCH INTEREST

Computer Vision, Natural Language Processing

PUBLICATION

1. Jie Lei, **Licheng Yu**, Tamara L. Berg, Mohit Bansal, "What Happens Next? Video-and-Language Future Event Prediction", in EMNLP 2020.

2. Linjie Li*, Yen-Chun Chen*, Yu Cheng, Zhe Gan, **Licheng Yu**, Jingjing Liu, "HERO: Hierarchical Encoder for Video+Language Omni-representation Pre-training", in EMNLP 2020. (* denotes equal contribution).

3. Jize Cao, Zhe Gan, Yu Cheng, **Licheng Yu**, Yen-Chun Chen, Jingjing Liu, "Behind the Scene: Revealing the Secrets of Pre-trained Vision-and-Language Models", in ECCV 2020 (spotlight).

4. Yen-Chun Chen*, Linjie Li*, **Licheng Yu***, Ahmed El Kholy, Faisal Ahmed, Zhe Gan, Yu Cheng, Jingjing Liu, "UNITER: Learning Universal Image-Text Representations", in ECCV 2020 (* denotes equal contribution).

5. Jie Lei, **Licheng Yu**, Tamara L. Berg, Mohit Bansal, "TVR: A Large-Scale Dataset for Video-Subtitle Moment Retrieval", in ECCV 2020.

6. Jie Lei, **Licheng Yu**, Tamara L. Berg, Mohit Bansal, "TVQA+: Spatio-Temporal Grounding for Video Question Answering", in ACL 2020.

7. Yandong Li, Yu Cheng, Zhe Gan, **Licheng Yu**, Liqiang Wang, Jingjing Liu, "BachGAN: High-Resolution Image Synthesis from Salient Object Layout", in CVPR 2020.

8. Jingzhou Liu, Wenhu Chen, Yu Cheng, Zhe Gan, **Licheng Yu**, Yiming Yang, Jingjing Liu, "VIOLIN: A Large-Scale Dataset for Video-and-Language Inference", in CVPR 2020.

9. **Licheng Yu**, Xinlei Chen, Georgia Gkioxari, Mohit Bansal, Tamara L. Berg, Dhruv Batra, "Multi-target Embodied Question Answering", in CVPR 2019.

10. Hao Tan, **Licheng Yu**, Mohit Bansal, "Learning to Navigate Unseen Environments: Back Translation with Environmental Dropout", in NAACL 2019. (Rank 1 on VLN Leaderboard)

11. Jie Lei, **Licheng Yu**, Mohit Bansal, Tamara L. Berg, "TVQA: Localized Compositional Video Question Answering", in EMNLP 2018 (oral).

12. **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.

13. Anja Belz, TL Berg, **Licheng Yu**, "From image to language and back again", in JNLE 2018.

14. **Licheng Yu**, Mohit Bansal, Tamara L. Berg, " Hierarchically-Attentive RNN for Album Summarization and Storytelling", in EMNLP 2017.

15. **Licheng Yu**, Hao Tan, Mohit Bansal, Tamara L. Berg, "A Joint Speaker-Listener-Reinforcer Model for referring expressions.", in CVPR 2017 (spotlight).

16. Hongteng Xu, **Licheng Yu**, Mark Davenport, Hongyuan Zha, "A unified framework for manifold landmarking", in IEEE Transactions on Signal Processing, 2018

17. **Licheng Yu**, Patrick Poirson, Shan Yang, Alexander C. Berg, Tamara L. Berg, "Modeling Context in Referring Expressions", in ECCV, 2016 (Spotlight)

18. 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

19. **Licheng Yu**, Eunbyung Park, Alexander C. Berg, Tamara L. Berg, "Visual Madlibs: Fill-in-the-Blank Description Generation and Question Answering", in ICCV, 2015

20. 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

21. **Licheng Yu***, Hongteng Xu*, Hongyuan Zha, Yi Xu. "Dictionary Learning with Mutually Reinforcing Group-Graph Structures." in AAAI, 2015. (* denotes equal contribution)

22. **Licheng Yu**, Yi Xu, Hongteng Xu, Hao Zhang, "Quaternion-based Sparse Representation of Color Image." in ICME, 2013 (Oral)

23. **Licheng Yu**, Yi Xu, Hongteng Xu, "Self-Example Based Super-resolution with Fractal-based Gradient Enhancement." in ICME workshop, 2013

24. **Licheng Yu**, Yi Xu, Bo Zhang, "Single Image Super-resolution via Phase Congruency Analysis." in VCIP, 2013 (Oral)

25. **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

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

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