

Chang Liu

CONTACT INFORMATION

1-511, FIT Building
Tsinghua University, China, 100084
E-mail: cliu13@mails.tsinghua.edu.cn;
liuchang8am@gmail.com
Mobile: +86-18811585027 (valid after Nov. 2017)
+1 410-369-8181 (valid before Nov. 2017)

RESEARCH INTERESTS

My general research interests include multimodal modeling using deep learning methods. In particular, I'm interested in the architectures of convolutional neural networks and recurrent neural networks, and their applications & intersections in computer vision and natural language processing. I'm also interested in modeling time-series data like haptic stream for object recognition, video stream for scene understanding, etc.

EDUCATION BACKGROUND

Johns Hopkins University, Baltimore, MD, USA 2016.10-2017.10
Visiting Scholar in **CCVL Group**
• Affiliation: **Department of Computer Science**
• Advisor: **Alan Yuille**

Tsinghua University, Beijing, China 2013.8-2018.6
Ph.D. Candidate, **Department of Computer Science and Technology**
• Affiliation: **State Key Laboratory of Intelligent Technology and Systems**
• Advisor: **Fuchun Sun**

University of Hamburg, Hamburg, Germany 2014.9-2014.10
Joint Training Ph.D, **CINACS**
• Affiliation: **Department of Informatics**
• Advisor: **Jianwei Zhang**

Zhejiang University, Hangzhou, China 2011.2-2011.7
China 9(C9) Visiting Student
• Affiliation: **College of Computer Science and Technology**

Harbin Institute of Technology, Harbin, China 2009.8-2013.6
B.Eng, **School of Computer Science and Technology**
• Thesis: Mowing robot path planning and obstacle avoidance planning
—Design and Simulation
• GPA: 92.95/100, Rank: 2/168

WORK EXPERIENCE

Microsoft Research Asia, Beijing, China 2015.5-2016.6
Research Intern
• Affiliation: **Multimedia Search and Mining**
• Advisor: **Changhu Wang**

Thomson Reuters, Beijing, China 2015.2-2015.5
Software Engineer Intern
• Group: **Time Series**

PUBLICATIONS

[1] **Chang Liu**, Fuchun Sun, Changhu Wang, Feng Wang, Alan Yuille. *MAT: A Multimodal Attentive Translator for Image Captioning*. International Joint Conference on Artificial Intelligence (IJCAI) 2017, Oral. [LINK](#)

- [2] **Chang Liu**, Fuchun Sun, Alan Yuille. *Haptic Object Recognition: A Recurrent Approach*. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2017.
- [3] **Chang Liu**, Fuchun Sun, Changhu Wang. *MMT: A Multimodal Translator for Image Captioning*. International Conference on Artificial Neural Networks (ICANN) 2017.
- [4] **Chang Liu**, Changhu Wang, Fuchun Sun, Rui Yong. *Image2Text: A Multimodal Caption Generator*. ACM Multimedia (ACM MM) 2016, [LINK](#)
- [5] **Chang Liu**, Fuchun Sun. *HMAX model: A Survey*. Neural Networks(IJCNN), 2015 International Joint Conference on. IEEE, 2015
- [6] **Chang Liu**, Fuchun Sun. *Lens Distortion Correction Using ELM*. Proceedings of ELM-2014 Volume 2. Springer International Publishing, 2015. 21-30
- [7] Feng Wang, Xiang Xiang, **Chang Liu** et. al, *Transferring Face Verification Nets To Pain and Expression Regression*. IEEE International Conference on Image Processing (ICIP) 2017

PROJECTS

Image2Text: Automatically Describing an Image by a Sentence

- Multimedia Search and Mining, MSRA
- 2015.6-2016.6
- Research and Developer, formulate this problem as a multimodal translation task, and develop novel algorithms to solve this problem.

Cross-modal Learning: Adaptivity, Prediction and Interaction

- China and Germany interdisciplinary major collaborative research projects
- 2016.1-2019.12

Tennis Eagle Eye

- Tsinghua University, State Physical Culture Administration
- 2014.2-2014.12
- Developer of camera calibration; Proposed calibration methodology and distortion correction for large visual field

Intelligent Mowing Robot

- Tsinghua University, Shenzhen Silver Star Intelligent Technologies Inc.
- 2013.2-2013.8
- Leader of project; Proposed system prototype architecture

HONORS AND AWARDS

Scholarship under the State Scholarship Fund by China Scholarship Council
 Meritorious Winner (1st prize) [MCM&ICM](#), 2012
 Second Prize of National English Competition for College Students, 2010
 Annual Merit Student, 2009-2010
 5 People Scholarships during 2009 to 2012

SKILLS

Language: C/C++, Python

Deep learning frameworks, e.g., Tensorflow, Torch7

English: TOEFL 106, GRE 1380+4.5

SERVICES

Reviewer: The 40th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR2017)

Reviewer: International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI2014)