Yang Liu

Room 310 • Main Building • Tsinghua University • Beijing 100084 • P. R. China
y-liu16@mails.tsinghua.edu.cn • liuyang12.github.io

Education

Tsinghua University   BEIJING, CHINA
  Master of Science in Control Science and Engineering   *2016 – present (expected 2019)*
    Advisor: Qionghai Dai.   GPA 3.9/4.0, ranking 3/222.

Tsinghua University   BEIJING, CHINA
  Bachelor of Science in Automation   *2012 – 2016*
    Thesis advisor: Qionghai Dai.   GPA 92/100, ranking 3/136.

Research Interests

Computational imaging: combining optical imaging systems with compressive sensing and machine learning techniques.

Publications

Preprint & Under reivew

[2] **Yang Liu***, Xin Yuan*, Jinli Suo, David J. Brady & Qionghai Dai. Rank minimization for snapshot compressive imaging. *arXiv preprint 1807.07837* (*submitted to IEEE Trans. Pattern Anal. Mach. Intell.*) (2018). [*Equal contributions]

[1] **Yang Liu**, Jinli Suo, Yuanlong Zhang & Qionghai Dai. Single-pixel phase and fluorescence microscope. (*submitted to Opt. Express*) (2018).

Journal articles

[1] Yuwang Wang, **Yang Liu**, Jinli Suo, Guohai Situ, Chang Qiao & Qionghai Dai. High speed computational ghost imaging via spatial sweeping. *Sci. Rep.* **7**, 45325; doi: 10.1038/srep45325 (2017).

Conference proceedings

[1] **Yang Liu**, Jinli Suo, Yuanlong Zhang & Qionghai Dai. Simultaneous fluorescence and quantitative phase microscopy with single-pixel detectors. in *Proc. SPIE 10503, Quantitative Phase Imaging IV*, 105032K; doi: 10.1117/12.2286757 (2018).

Honors and Awards

Honors: Outstanding Graduate of Beijing and Tsinghua University (2016).

Scholarships: National Endeavor Scholarship (2013 & 2015), Samvo-Chan Shung Fai Scholarship (2014) and Cyrus Tang Scholarship (2013, 2014 & 2015).

Competitions: Second Prize in the 33th Challenge Cup of Tsinghua University (2015), Honorable Mention in Mathematical Contest in Modeling (2015) and Second Prize in Contemporary Undergraduate Mathematical Contest in Modeling (2014).

Research Experience

Department of Automation, Tsinghua University   BEIJING, CHINA
  Research Assistant   *Sep 2015 – present*
    At Broadband and Digital Media Laboratory, I emphasize on computational imaging combined with compressive sensing and machine learning techniques. My current interests include high-throughput imaging, imaging through scattering media and single-pixel imaging. Advisor: Qionghai Dai.

Chemical and Biological Engineering, University of British Columbia   VANCOUVER, BC CANADA
  Research Intern   *Jun 2015 – Aug 2015*
    At Data Analytics and Intelligent Systems Laboratory, I worked on estimation and optimal control of Li-ion batteries. Advisors: Bhushan Gopaluni and Brian Wetton (UBC Math).

Teaching Experience

Computer language and programming (using C) lectured by Jinli Suo   TSINGHUA UNIVERSITY
  Teaching Assistant   *Fall 2018*

Skills

Programming languages: MATLAB, C/C++ (*proficient*), Python, Java, LabVIEW (*competent*) and R (*limited*).

Natural languages: Chinese (*mother tongue*) and English (*full professional proficiency, TOEFL 106, GRE 325+3.0*).

Interests

Sports: Badminton, tennis, ping pong and running (*twice a week*).

Hobbies: Reading, design and LaTeXing.

References

Prof. Qionghai Dai, Department of Automation, Tsinghua University, Beijing, China.   qhdai@tsinghua.edu.cn
Dr. Jinli Suo, Department of Automation, Tsinghua University, Beijing, China.   jlsuo@tsinghua.edu.cn
Dr. Xin Yuan, Nokia Bell Labs, Murray Hill, NJ, USA. xyuan@bell-labs.com