Yang Liu

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Education

Tsinghua University — Beijing, China
Master student in Control Science and Engineering — *2016 – present*
Advisor: Qionghai Dai. GPA 3.9/4.0, ranking 3/222.

Tsinghua University — Beijing, China
Bachelor of Engineering 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.

Computational neuroscience: applying computational methods, like the idea of deep neural networks brought from the brain to better understand the perception and thus cognition of the brain.

Publications

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 *BiOS SPIE* (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 Networks 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.

Skills

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

Natural languages: Chinese *(mother tongue)* and English *(full professional proficiency, TOEFL 97, GRE 325+3.0)*.

Interests

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

Hobbies: Reading, design and LaTeXing.