

Yang Liu

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Education

Tsinghua University

Master of Engineering in Control Science and Engineering

Advisor: Prof. Qionghai Dai. I also work with Prof. Jinli Suo.

BEIJING, CHINA
2016 – present (expected 2019)

Tsinghua University

Bachelor of Engineering in Automation

Thesis advisor: Prof. Qionghai Dai. GPA 92/100, ranking 3/136.

BEIJING, CHINA
2012 – 2016

Research Interests

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

Publications

Journal Articles (*Equal contributions)

3. Yang Liu*, Xin Yuan*, Jinli Suo, David J. Brady, and Qionghai Dai. Rank Minimization for Snapshot Compressive Imaging. *IEEE Transactions on Pattern Analysis and Machine Intelligence* (early access), doi:10.1109/TPAMI.2018.2873587 (2018).
2. Yang Liu, Jinli Suo, Yuanlong Zhang, and Qionghai Dai. Single-pixel Phase and Fluorescence Microscope. *Optics Express* 26, 32451–32462, doi:10.1364/OE.26.032451 (2018).
1. Yuwang Wang, Yang Liu, Jinli Suo, Guohai Situ, Chang Qiao, and Qionghai Dai. High Speed Computational Ghost Imaging via Spatial Sweeping. *Scientific Reports* 7, 45325, doi:10.1038/srep45325 (2017).

Conference Proceedings

1. Yang Liu, Jinli Suo, Yuanlong Zhang, and 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).
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Honors and Awards

Honors: Special Honor of Automation Department (3/~600, 2018), Outstanding Graduate of Beijing and Tsinghua University (2016).

Scholarships: Jiang Nanxiang Scholarship (finalist of Top-10 Graduate Scholarship of Tsinghua University, 30/~30,000, 2018), Samvo-Chan Shung Fai Scholarship (2014), National Endeavor Scholarship (2013 & 2015), Cyrus Tang Scholarship (2013, 2014 & 2015), and HAGE Scholarship (2013, 2014 & 2015).

Competitions: Second Prize in the 33-th 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

Research Assistant

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: Prof. Qionghai Dai.

BEIJING, CHINA
Sep 2015 – present

Chemical and Biological Engineering, University of British Columbia

Research Intern

At Data Analytics and Intelligent Systems Laboratory, I worked on estimation and optimal control of Li-ion batteries. Advisors: Prof. Bhushan Gopaluni and Prof. Brian Wetton (UBC Math).

VANCOUVER, BC CANADA
Jun 2015 – Aug 2015

Teaching Experience

Computer Language and Programming (using C) lectured by Prof. Jinli Suo

Teaching Assistant

TSINGHUA UNIVERSITY
Fall 2018

Skills

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

Natural Languages: Chinese (*native*) 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 L^AT_EXing.

References

Prof. Qionghai Dai, Professor

Department of Automation, Tsinghua University, Beijing, China

qhdai@tsinghua.edu.cn

Prof. Jinli Suo, Associate Professor

Department of Automation, Tsinghua University, Beijing, China

jlsuo@tsinghua.edu.cn

Dr. Xin Yuan, Lead Researcher, Video Analysis and Coding

Nokia Bell Labs, Murray Hill, New Jersey, USA

xyuan@bell-labs.com

Prof. Guohai Situ, Professor

Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, Shanghai, China

ghsitu@siom.ac.cn