# Shangjie Xue

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## Education

**Georgia Institute of Technology**, Atlanta, GA — Sept. 2021 - Present

*Ph.D. student* in *Computer Science*

**Massachusetts Institute of Technology**, Cambridge, MA — Sept. 2021

*Master of Science* in *Nuclear Science and Engineering*
*Master of Science* in *Electrical Engineering and Computer Science*

**Peking University**, Beijing, China — July 2018

*Bachelor of Science* in *Physics*

## Experience

**Research Assistant** — Sept. 2021 - Present

*Borg Lab, Georgia Institute of Technology* — *Advisor: Frank Dellaert*

**Research Assistant** — Sept. 2019 - Aug. 2021

*Department of NSE, Massachusetts Institute of Technology* — *Advisor: Lin-Wen Hu, Mingda Li*

**Research Intern** — June 2020 - Dec. 2020

*Uber ATG, Toronto* — *Advisor: Raquel Urtasun, Shenlong Wang*

**Undergraduate Researcher** — 2015 – 2018

*School of Physics, Peking University* — *Advisor: Yuan Li*

**Visiting Student Researcher** — Summer 2017

*Department of Physics, Massachusetts Institute of Technology* — *Advisor: Riccardo Comin*

## Selected Publications

- Y. Chen* F. Rong*,S. Duggal* S. Wang, X. Yan, S. Manivasagam, **S. Xue**, E. Yumer, R. Urtasun†, GeoSim: Photorealistic Image Simulation with Geometry-Aware Compositionfor Self-Driving, **CVPR** 2021 (Oral, Best paper candidate), **arxiv:2101.06543**.
- L. Yue*, **S. Xue***, J. Li*, W. Hu, A. Barbour, F. Zheng, L. Wang, J. Feng, S. B. Wilkins, C. Mazzoli, R. Comin† and Y. Li†,"Distinction between pristine and disorder-perturbed charge density waves in $ZrTe_3$", **Nature Communications** 11, no. 1 (2020): 1-8.
- W. Yao*, C. Li*, L. Wang*, **S. Xue**, Y. Dan, K. Iida, K, Kamazawa, K. Li, C. Fang†, Y. Li†, "Topological spin excitations observed in a three-dimensional antiferromagnet", **Nature Physics** 14, no. 10 (2018): 1011-1015.
  (* : Equal contribution, † : Corresponding author)

## Skills

- Programming: Python, C/C++, Matlab
- Tools/Software: ROS, PyTorch, Tensorflow, Keras, GTSAM, DRAKE, Arduino, PyQt, Blender, SolidWorks, LaTeX

## Selected Awards and Honors

- **"Manson Benedict"** Fellowship at MIT 2018 - 2019
- **"Merit Student Award"** at Peking University 2015 & 2016
- **"Wei Lin"** Scholarship at Peking University 2016
- **"Tung OOCL"** Scholarship at Peking University 2015
- **"Meritorious Winner"** in Mathematical Contest in Modeling (MCM) 2015