

# RUOJIN CAI

## CONTACT INFORMATION

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Address 2 West Loop Road, New York, NY 10044

## EDUCATION

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2019-PRESENT **Ph.D Student in Computer Science**, Cornell University

*Advisors: Prof. Noah Snavely and Prof. Bharath Hariharan*

*Research interests: 3D Computer Vision, Computational Photography, Deep Learning*

2015-2019 **B.E in Automation**, Tsinghua University

*GPA: 3.85/4.0 (top 3%)*

*Graduated with Outstanding Honor*

## PUBLICATIONS

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1. Ruojin Cai, Joseph Tung, Qianqian Wang, Hadar Averbuch-Elor, Bharath Hariharan, and Noah Snavely. Doppelgangers: Learning to Disambiguate Images of Similar Structures. *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2023.
2. Qianqian Wang, Yen-Yu Chang, Ruojin Cai, Zhengqi Li, Bharath Hariharan, Aleksander Holynski, Noah Snavely. Tracking Everything Everywhere All at Once. *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2023.
3. Haotong Lin, Qianqian Wang, Ruojin Cai, Sida Peng, Hadar Averbuch-Elor, Xiaowei Zhou, Noah Snavely. Neural Scene Chronology. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.
4. Ruojin Cai, Bharath Hariharan, Noah Snavely, and Hadar Averbuch-Elor. Extreme Rotation Estimation using Dense Correlation Volumes. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.
5. Le Yang\*, Haojun Jiang\*, Ruojin Cai, Yulin Wang, Shiji Song, Gao Huang, and Qi Tian. CondenseNet V2: Sparse Feature Reactivation for Deep Networks. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021. (\*equal contribution)
6. Ruojin Cai\*, Guandao Yang\*, Hadar Averbuch-Elor, Zekun Hao, Serge Belongie, Noah Snavely, and Bharath Hariharan. Learning Gradient Fields for Shape Generation. *European Conference on Computer Vision (ECCV)*, 2020. **Spotlight**. (\*equal contribution)
7. Zhixiang Chen\*, Ruojin Cai\*, Jiwen Lu, Jianjiang Feng, and Jie Zhou. Order-Sensitive Deep Hashing for Multimorbidity Medical Image Retrieval. *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, 2018. (\*equal contribution)

## RESEARCH EXPERIENCE

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- 2019-PRESENT **Graduate Research Assistant in Department of Computer Science**, Cornell University  
*Advisors: Prof. Noah Snavely and Prof. Bharath Hariharan*
- 2023-PRESENT **Research Intern**, Google  
*Advisors: Ricardo Martin-Brualla and Keunhong Park*
- 2021 **Research Intern**, Adobe  
*Advisors: Kalyan Sunkavalli and Yannick Hold-Geoffroy*
- 2018 **Research Intern in Department of Computer Science**, Cornell University  
*Advisors: Prof. Kilian Weinberger and Prof. Gao Huang*
- 2017-2019 **Undergraduate Researcher in Department of Automation**, Tsinghua University  
*Advisors: Prof. Jie Zhou and Prof. Jiwen Lu*

#### INVITED TALKS

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- 2022 Learning 3D Structures under Extreme Scenarios  
*Vision and Graphics seminar at Tel-Aviv University*
- 2022 Learning Gradient Fields for Shape Generation  
*Toronto Geometry Colloquium*

#### HONORS AND AWARDS

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- 2022 Snap Research Fellowship.
- 2018 Comprehensive Excellent Scholarship of Tsinghua University.
- 2017 Qualcomm Scholarship.
- 2015 National Scholarship.

#### SERVICE

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Paper reviewer of CVPR, ECCV, ICCV, 3DV, etc.

Teaching Assistant: Introduction to Computer Graphics (2019 Fall), Foundations of Artificial Intelligence (2020 Spring), Introduction to Computer Vision (2021 Spring, 2022 Spring)