Sara Aghajanzadeh

Contact Information

Department of Computer Science
University of Illinois
Urbana Champaign

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Research Interests

Computational Photography and Computer Vision

Education

University of Illinois at Urbana Champaign

Ph.D. Computer Science

- Advisor: Dr. David Forsyth
- GPA: 3.93

Purdue University

M.S. Electrical and Computer Engineering, May 2020

- Thesis: Camera Placement Meeting Restrictions of Computer Vision
- Advisor: Dr. Yung-Hsiang Lu
- GPA: 3.57

B.S. Computer Information Technology, May 2018

- Inst. Honors: With Highest Distinction
- Minor in Business Management
- GPA: 3.94

Preprints

Sara Aghajanzadeh and David Forsyth, *Towards Robust Low Light Image Enhancement*, 2022. [Online]. Available: https://arxiv.org/abs/2205.08615

Sara Aghajanzadeh and David Forsyth, *Long Scale Error Control in Low Light Image and Video Enhancement Using Equivariance*, 2022. [Online]. Available: https://arxiv.org/abs/2206.01334

Conference Papers

Sara Aghajanzadeh, Roopasree Naidu, Shuo-Han Chen, Caleb Tung, Abhinav Goel, Yung-Hsiang Lu, George Thiruvathukal, *Camera Placement Meeting Restrictions Of Computer Vision*, IEEE International Conference on Image Processing 2020.

Abhinav Goel, Caleb Tung, **Sara Aghajanzadeh**, Isha Ghodgaonkar, Shreya Ghosh, George K. Thiruvathukal, Yung-Hsiang Lu, *Low-Power Object Counting with Hierarchical Neural Networks*, ACM/IEEE International Symposium on Low Power Electronics and Design 2020.

Samira Pouyanfar, Yudong Tao, Anup Mohan, Haiman Tian, Ahmed S. Kaseb, Kent Gauen, Ryan Dailey, **Sara Aghajanzadeh**, Yung-Hsiang Lu, Shu-Ching Chen, Mei-Ling Shyu, *Dynamic Sampling in Convolutional Neural Networks for Imbalanced Data Classification*, IEEE Conference on Multimedia Information Processing and Retrieval 2018.

Journal Papers

Abhinav Goel, **Sara Aghajanzadeh**, Caleb Tung, Shuo-Han Chen, George K. Thiruvathukal, Yung-Hsiang Lu, Modular Neural Networks for Low-Power Image Classification on Embedded Devices, ACM Transactions on Design Automation of Electronic Systems, October 2020.

Yung-Hsiang Lu, George K. Thiruvathukal, Ahmed S. Kaseb, Kent Gauen, Damini Rijhwani, Ryan Dailey, Deeptanshu Malik, Yutong Huang, **Sara Aghajanzadeh**, Minghao Guo, *See the World through Network Cameras*, IEEE Computer pages 30-40, Vol. 52, Issue 10, October 2019.

Book Chapter

Sara Aghajanzadeh, Andrew T. Jebb, Yifan Li, Yung-Hsiang Lu, George K. Thiruvathukal, *Observing Human Behavior Through Worldwide Network Cameras*, Big Data in Psychological Research. American Psychological Association, 2020.

Invited Talks

Rethink Computer Vision with Global Public Cameras , Academia Sinica, Taiwan. (September 2019)

Teaching Experience

Spring 2021, Fall 2022	Teaching Assistant, Computational Photography
Fall 2020	Teaching Assistant, Database Systems
2018-2019	Teaching Assistant, Object-Oriented Programming C++ & Java

Research Experience

01/2023-present	Graduate Research Assistant University of Illinois Advisors: Dr. David Forsyth and Dr. Viktor Gruev
Spring 2020	Graduate Research Assistant Purdue University Advisor: Dr. Yung-Hsiang Lu
2017-2018	Undergraduate Research Lead Purdue University Advisor: Dr. Yung-Hsiang Lu and Dr. George Thiruvathukal

Fellowship

08/2021-08/2022	Broadening Participation in Computing (BPC) Fellow University of Illinois Advisor: Dr. Nancy Amato

Relevant Skills

Software Tools:	PyTorch, OpenCV, Microsoft Office, Git, LaTex
Programming Languages:	Python, C++, Java, PL/SQL
Languages:	English, Persian, Turkish(basic)

Graduate Coursework

- ❑ Algorithms
- ❑ Visual Analytics
- ❑ Linear Algebra
- ❑ Random Variables and Signals
- ❑ Machine Learning
- ❑ Deep Learning
- ❑ Statistical Learning
- ❑ Machine Learning for Signal Processing
- ❑ Computational Photography
- ❑ Computer Vision
- ❑ 3D Vision