

Daeyun Shin

Curriculum Vitae

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Research Interests

My research interests are in artificial intelligence at the intersection of computer vision and graphics. I am interested in 3D scene understanding and unsupervised and transfer learning.

Education

Sept 2017 – present	Ph.D. in Computer Science, University of California, Irvine
Aug 2015 – Jul 2017	M.S. in Computer Science, University of Illinois at Urbana-Champaign
Aug 2011 – May 2015	B.S. in Computer Science, University of Illinois at Urbana-Champaign

Publications

- [1] D. Shin, C. Fowlkes, and D. Hoiem, "Pixels, voxels, and views: A study of shape representations for single view 3d object shape prediction," in *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018.
- [2] J. Rock, T. Gupta, J. Thorsen, J. Gwak, D. Shin, and D. Hoiem, "Completing 3D object shape from one depth image," in *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2015.

Manuscripts

- [1] D. Shin, Z. Ren, E. B. Sudderth, and C. C. Fowlkes, "Multi-layer depth and epipolar feature transformers for 3d scene reconstruction," *in review, arXiv preprint arXiv:1902.06729*, 2019.
- [2] Z. Wang, L. Chen, S. Rathore, D. Shin, and C. Fowlkes, "Geometric pose affordance: 3d human pose with scene constraints," *arXiv:1905.07718*, 2019.
- [3] T. Gupta, D. Shin, N. Sivagnanadasan, and D. Hoiem, "3dfs: Deformable dense depth fusion and segmentation for object reconstruction from a handheld camera," *arXiv:1606.05002*, 2016.

Internship

June 2019 – Sept 2019	Snap Inc. , Research Intern Santa Monica, CA – 3D vision research project.
May 2016 – Aug 2016	Google Inc. , Software Engineering Intern New York, NY – Worked on a graphics/vision project registering handwritten strokes to images for an unreleased product.
May 2015 – Aug 2015	Google Inc. , Software Engineering Intern Pittsburgh, PA – Display/Video Ads team.
May 2014 – Aug 2014	Amazon Web Services , Software Engineering Intern Palo Alto, CA – Software development with WorkDocs team.
May 2013 – Aug 2013	Amazon.com , Software Engineering Intern Seattle, WA – Worked on face detection for video-based surveillance software in a computer vision team.

Academic Employment

- Since Mar 2018 **Research Assistant**, CS Department | Irvine, CA
– 3D vision research with Prof. Charless Fowlkes.
- Sept 2017 – Mar 2018 **Teaching Assistant**, CS Department | Irvine, CA
– Design and Analysis of Algorithms (CS 161), Computational Photography (CS 116)
- Aug 2016 – Jul 2017 **Research Assistant**, CS Department | Urbana, IL
– 3D vision research with Prof. Derek Hoiem.
- Aug 2015 – May 2016 **Teaching Assistant**, CS Department | Urbana, IL
– Computational Photography (CS 445), Applied Machine Learning (CS 498 DF)
- Aug 2013 – May 2014 **Course Assistant**, Undergraduate, CS Department | Urbana, IL
– CS 242 (Programming Studio), CS 473 (Fundamental Algorithms, Grader), CS 241 (System Programming), ENG 100 (Engineering Orientation).

Workshop Presentations

- Jun 2019 3D Scene Understanding for Vision, Graphics, and Robotics: Multi-layer and Virtual-view 3D Scene Reconstruction from a Single Image
- Jun 2019 The 2019 SUMO Challenge Workshop at CVPR: Multi-layer depth and epipolar feature transformers for 3d scene reconstruction
- Jun 2018 Vision Meets Cognition Workshop at CVPR: Pixels, voxels, and views: A study of shape representations for single view 3D object shape prediction

Professional Services

- Since 2018 **Paper Reviewer**, ICCV 2019, CVPR 2019, BMVC 2019, ACCV 2018, WACV 2019

Activities

- Aug 2013 **ACM-ICPC**, Represented UIUC in Mid-Central USA
- Jun 2012 – Jul 2012 **Lu Lab**, Research application development in C++, <http://lulab.bioen.illinois.edu/>
- May 2012 – Aug 2012 **Institute for Genomic Biology**, Urbana, IL, Employed part-time to develop agricultural database migration and visualization software.