

Education

- Sep '17 - **University of Toronto**, *PhD in Computer Science*, 3.9/4.0.
present Advised by Prof. Sanja Fidler
May '17 **IIT Kanpur**, *B.Tech in Computer Science*, 9.6/10.0.

Research Experience

- Nov '19 **NVIDIA**, *Research Scientist*.
- present Currently working on multiple projects related to generative models of simulated data and Active Learning
Sep '17 **University of Toronto**, *Graduate Researcher*, Prof. Sanja Fidler.
- present Working on Machine Learning for Machine Learning data, including human-in-the-loop data annotation [2,3,4], learning from noisy data [6] and efficient data acquisition [7]
Jul '18 **NVIDIA**, *Research Intern*, Prof. Sanja Fidler.
- Nov '19 Research primarily related to learning generative models of data given parametric simulators. Has resulted in multiple publications including Meta-Sim [9], Neural Turtle Graphics [8] and STEAL [6]
May '17 **Fyusion Inc.**, *Research Intern*, Dr. Stefan Holzer.
- Aug '17 Confidential
Aug '16 **IIT Kanpur**, *Undergraduate Researcher*, Prof. Gaurav Sharma, Dr. Karan Sikka.
- May '17 Worked on Video Action Recognition, resulting in a publication at CVPR 2017 [1]
May '16 **University of Toronto**, *Research Intern*, Prof. Sanja Fidler, Prof. Raquel Urtasun.
- Jul '16 Worked on extending Order Embeddings to generate Visual-Semantic Embeddings that simultaneously satisfy multiple ordering rules between entities

Preprints

- [10] Color Sails: Discrete-Continuous Palettes for Deep Color Exploration
Masha Shugrina, [Amlan Kar](#), Karan Singh, Sanja Fidler
arxiv 2018

Publications

- [9] Meta-Sim: Learning to Generate Synthetic Datasets
[Amlan Kar](#), Aayush Prakash, Ming-Yu Liu, Eric Cameracci, Justin Yuan, Matt Rusiniak, David Acuna, Antonio Torralba, Sanja Fidler
ICCV 2019, Seoul, South Korea **(Oral Presentation)**
[8] Neural Turtle Graphics for Modeling City Road Layouts
Hang Chu, Daiqing Li, David Acuna, [Amlan Kar](#), Maria Shugrina, Xinkai Wei, Ming-Yu Liu, Antonio Torralba, Sanja Fidler
ICCV 2019, Seoul, South Korea **(Oral Presentation)**
[7] Learning to Caption Images through a Lifetime by Asking Questions
Kevin Shen, [Amlan Kar](#), Sanja Fidler
NeurIPS 2018, ViGIL Workshop **(Oral Presentation)**
ICCV 2019, Seoul, South Korea
[6] Devil is in the Edges: Learning Semantic Boundaries from Noisy Annotations
David Acuna, [Amlan Kar](#), Sanja Fidler
CVPR 2019, Long Beach, CA, USA **(Oral Presentation)**

- [5] Creative Flow+ Dataset
Maria Shugrina, Ziheng Liang, Amlan Kar, Jiaman Li, Angad Singh, Karan Singh, Sanja Fidler
CVPR 2019, Long Beach, CA, USA
- [4] Fast Interactive Object Annotation with Curve-GCN
Huan Ling*, Jun Gao*, Amlan Kar, Wenzheng Chen, Sanja Fidler
CVPR 2019, Long Beach, CA, USA
- [3] Object Instance Annotation with Deep Extreme Level Set Evolution
Zian Wang, David Acuna*, Huan Ling*, Amlan Kar, Sanja Fidler
CVPR 2019, Long Beach, CA, USA
- [2] Efficient Interactive Annotation of Segmentation Datasets with PolygonRNN++
David Acuna*, Huan Ling*, Amlan Kar*, Sanja Fidler
CVPR 2018, Salt Lake City, Utah, USA
- [1] AdaScan: Adaptive Scan Pooling in Deep Convolutional Neural Networks for Human Action Recognition in Videos
Amlan Kar*, Nishant Rai*, Karan Sikka, Gaurav Sharma
CVPR 2017, Honolulu, Hawaii, USA

Teaching Experience

- Jan '18 **Introduction to Visual Understanding, CSC420, UofT, TA.**
- May '18 Preparation of course material and assignments
- Sep '17 **Introduction to AI, CSC384, UofT, TA.**
- Dec '17 Preparation of course material and assignments
- Jan '17 **Topics in Computer Vision, CS698U, IITK.**
- May '17 Preparation of course material and assignments
- Aug '16 **Introduction to Computing, ESC101A, IITK, Tutor.**
- May '17 Teaching tutorials, setting and grading question papers and supervising lab sessions
- Aug '14 **Introduction to Electrodynamics, PHY103A, IITK, Academic Mentor.**
- Apr '15 Led doubt clearing sessions and personally mentored students

Academic Achievements

- Jun '18 **PhD Conference Travel Award, UofT, CVPR 2018.**
- Apr '15,'16 **Academic Excellence Award, IIT Kanpur, Dean's List.**
- Nov '14 **Best Sectional Award, Course Project for TA - 201.**
Received the award for building a Mechanical Object Elevator
- Jun '13 **IIT-JEE, All India Rank - 271 (99.998 Percentile).**
- Apr '13 **Indian National Physics Olympiad, Selected in Top 35 in India.**
Awarded gold medal and attended selection camp for Indian team to IPhO '13
- Dec '12 **National Standard Olympiads, Selected in Top 300(1%) in India.**
Selected in Top 1% in National Standard Olympiads in Physics, Chemistry and Astronomy
- Aug '12 **Kishore Vaigyanik Protsahan Yojana(KVPY).**
One of 300 recipients of KVPY - 2012 scholarship for higher studies in Basic Sciences
- Aug '12,'07 **All Rounder of the Year Award, D.A.V. CSPur.**
- Aug '08 **National Talent Search Examination.**
One of 800 recipients of NTSE - 2008 scholarship
- Aug '06 **National Cyber Olympiad, All India Rank - 1.**

Academic Service

- Reviewer CVPR '18, '19, '20; ICLR '19; ECCV '18, '20; ICCV '19