

Edward James Smith

Education:

Doctorate of Science, Computer Science McGill University, Montreal, QC	2018 -
Masters of Science, Computer Science McGill University, Montreal, QC	2016 - 2018
Bachelor of Science, Mathematics and Computer Science First Class Honours McGill University, Montreal, QC	2013 - 2016
Diplome d'Etudes Collegial (DEC), Applied Sciences Marianopolis College, Montreal, QC	2011 - 2013

Skills:

Programming Languages: Python, Java, C, C++, SQL, Javascript, C#
Frameworks and Tools: PyTorch, Tensorflow, Caffe

Experience:

Visiting Researcher at Facebook AI Research Facebook, Montreal, QC <ul style="list-style-type: none">• 3D deep learning research• Robotic haptic 3D object interaction	Oct 2019 -
AI Research Intern at NVIDIA NVIDIA Development, Toronto, ON <ul style="list-style-type: none">• Specializing in 3D Deep Learning• Learning 3D geometry through implicit representations• Differentiable rendering for 3D reconstruction and generative modeling without 3D supervision	Mar - Aug 2019
Research Student at The Mobile Robotics Lab MRL McGill, Montreal, QC <ul style="list-style-type: none">• Geometric and graph-based deep learning for 3D mesh generation• 3D super resolution for efficient 3D shape reconstruction• Generalizable generative modeling for voxel objects	Dec 2016 -

Research Intern at Wrnch

May - Sep 2016

Montreal, QC

- Developing algorithms for 3D pose estimation from single images
- Software development for image de-noising

Intern at JSS Medical Research

Jun - Sep 2014, 2015

Montreal, QC

- Software development

Teaching Assistant, McGill University

Sep 2016 -

Montreal, QC

Publications:

Edward Smith, Krishna Murthy Jatavallabhula, Jean-Francois Lafleche, Clement Fuji Tsang, Artem Rozantsev, Wenzheng Chen, Tommy Xiang, Rev Lebedev, Sanja Fidler. Kaolin: A PyTorch Library for Accelerating 3D Deep Learning Research. 2019. White Paper.

Wenzheng Chen, **Edward J Smith**, Huan Ling, Jun Gao, Jaakko Lehtinen, Alec Jacobson, and Sanja Fidler. Learning to predict 3D objects with an interpolation-based differentiable renderer. In NeurIPS, 2019. Poster.

Edward J Smith, Scott Fujimoto, Adriana Romero, and David Meger. GEOMETRICS: Exploiting geometric structure for graph-encoded objects. In ICML, 2019. Long Oral.

Edward J Smith, Scott Fujimoto, and David Meger. Multi-view silhouette and depth decomposition for high resolution 3D object representation. In NeurIPS, 2018. Poster.

Edward J Smith and David Meger. Improved adversarial systems for 3d object generation and reconstruction. In Conference on Robot Learning, 2017. Oral.

Awards:**FRQNT Nature et Technologies Scholarship – Doctoral****2019 - 2022****NSERC Postgraduate Scholarship – Doctoral****2019 - 2021****Harold H. Helm Fellowship****2019****McGill Graduate Excellence Award****2016, 2018, 2019****NSERC Industrial Undergraduate Student Research Award****2016****Supplement NSERC Experience Award****2016**