Sarah Anne **Kushner**

PHD STUDENT · COMPUTER GRAPHICS

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Education

University of Toronto
Toronto, ON, Canada

PHD IN COMPUTER SCIENCE – GEOMETRY PROCESSING & FABRICATION
Sept. 2017 - present

Advised by Alec Jacobson

Institut polytechnique de Grenoble (Grenoble INP)
Grenoble, France

MS IN INFORMATICS – GRAPHICS, VISION & ROBOTICS
Sept. 2016 - Jun. 2017

Advised by Marie-Paule Cani and Rémi Ronfard
Thesis: *The Sketch-Based Posing and Animation of Multiple Characters: Animation of Dancing Couples*

Drexel University
Philadelphia, PA, USA

BS IN COMPUTER SCIENCE, MINOR IN DIGITAL MEDIA
Sept. 2012 - Jun. 2016

Magna Cum Laude

Publications & Posters

Levitating Rigid Objects with Hidden Support Structures
Toronto, ON, Canada

SUBMITTED TO COMPUTER GRAPHICS FORUM
April 2020

Sarah Kushner, Risa Ulinski, Karan Singh, David I.W. Levin, Alec Jacobson

Example-Based Print Preview for Laser Cutting (Poster)
Toronto, ON, Canada

GRAPHICS INTERFACE
May 2018

Sarah Kushner, Alec Jacobson

Ontology-Driven Data Semantics Discovery for Cyber-Security (Poster)
Harrisburg, PA, USA

UNDERGRADUATE RESEARCH AT THE CAPITOL
Apr. 2016

Sarah Kushner, Marcello Balduccini

Ontology-Driven Data Semantics Discovery for Cyber-Security
Portland, OR, USA

PRACTICAL ASPECTS OF DECLARATIVE LANGUAGES
Jun. 2015

Marcello Balduccini, Sarah Kushner, Jacquelin Speck

Talks

Sneakily Staging Structually Sound Supports
Waterloo, ON, Canada

MONTREAL TORONTO GRAPHICS WORKSHOP
November 2019

Sarah Kushner, Alec Jacobson

Invisible Supports for 3D Zoetrope Movies
Montréal, QC, Canada

MONTREAL TORONTO GRAPHICS WORKSHOP
November 2018

Sarah Kushner, Alec Jacobson

Realistic Example-Based Print Preview for Laser Cutting
Toronto, ON, Canada

MONTREAL TORONTO GRAPHICS WORKSHOP
November 2017

Sarah Kushner, Alec Jacobson

Teaching

Course Instructor
University of Toronto

CSC 418/2504 - COMPUTER GRAPHICS
Summer 2020

Taught the fourth year undergraduate graphics course remotely to ~70 students

Teaching Assistant   *University of Toronto*

CSC 419/2520 - GEOMETRY PROCESSING
CSC 2521 - TOPICS IN COMPUTER GRAPHICS: SEMINAR ON GEOMETRY AND ANIMATION
CSC 418/2504 - COMPUTER GRAPHICS   *2017-2020*
CSC 320 - INTRODUCTION TO VISUAL COMPUTING
CSC 318 - INTERACTIVE COMPUTATIONAL MEDIA

Lead discussions on seminal research papers in graphics

Created marking schemes, marked assignments and exams

Honors and Awards ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

Beatrice Worsley Graduate Scholarship in Computer Science   *University of Toronto*

RECIEVED, $4000 CAD   *2018*

Awarded to PhD students who have taken an active role in helping to promote women in the field of computer science

Grenoble INP Fondation Bourse d'Excellence Internationale   *Grenoble INP*

RECIEVED, €5000 EUR   *2016/2017*

Attract talented international students with strong academic and professional potential to engineering training at Grenoble INP

Fulbright Study/Research Fellowship   *Fulbright U.S. Student Program*

SEMI-FINALIST   *2016/2017*

Study/research grant to design a project to work on with advisers at foreign universities

James B. Maginnis Award   *Drexel University*

RECIEVED, $500 USD   *Winter 2016*

Presented to an upper division student majoring in computer science in recognition of academic excellence

SuperNova Undergraduate Research Fellow   *Drexel University*

RECIEVED   *2016*

Engaged in progressively demanding undergraduate research experiences, courses and projects

Franklin Institute Laureate Liaison   *Franklin Institute, Drexel University*

RECIEVED   *Fall 2017*

Liaison to visiting scholars (Edmund Clarke) recognized at the Franklin Institute

STAR Scholar Summer Research Program   *Drexel University*

RECIEVED, $4000 USD   *2013*

Students Tackling Advanced Research Program

Professional Experience ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

Inria   *Montbonnot-Saint-Martin, France*

RESEARCH INTERN (STAGIAIRE)   *Feb. 2017 - Jun. 2017*

   Project on sketch-based animation techniques and numerical methods to animate multiple characters

Applied Informatics Group   *Philadelphia, PA, USA*

RESEARCH SOFTWARE ENGINEER CO-OP   *Sept. 2014 - Mar. 2015*

   Project on building a robust intelligent system to answer cybersecurity queries

Activities ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

LEADERSHIP

HER CODE CAMP   *Affiliated with University of Toronto*

DIRECTOR OF MARKETING, DIRECTOR OF MENTORSHIP   *Sept. 2019 - present*

   Helped organize Python workshops to high school students in the Toronto area who identify as female or non-binary

MENTORING UNDERGRADUATES & HIGH SCHOOL STUDENTS

Cindy Zhu and Kevin Huang   *(visiting) Unionville High School*

MENTOR   *Apr. 2018 - present*

   Project on viewing meshes in VR

Arjun Chhabra *University of Toronto*
MENTOR *Jun. 2018 - Sept. 2018*
  Project on visualization tools for laser cutting

Undergraduate Research Leaders *Drexel University*
MENTOR *Sept. 2015 - Jun. 2016*
  Guided undergraduate students who wanted to be involved in research

MEMBERSHIPS

ACM SIGGRAPH
MEMBER *Oct. 2012 - present*

Upsilon Pi Epsilon (International Honor Society for the Computing Disciplines)
MEMBER *Oct. 2014 - present*

Department of Computer Science Women *University of Toronto*
MEMBER *Sept. 2017 - present*

Personal

I draw, paint, silkscreen, do gymnastics, and speak French. I also have two cute rabbits.