

# Chenxi Liu

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## Education

### University of British Columbia

Ph.D. in Computer Science

📅 Sep 2016 - Jun 2023 📍 Vancouver BC, Canada

- Advised by Professor Alla Sheffer

### Carnegie Mellon University

M.S. in Computer Science

📅 Aug 2013 - Dec 2014 📍 Pittsburgh PA, USA

- GPA: 3.85/4.0

### Beihang University

B.Eng. in Computer Science and Technology

📅 Aug 2013 - Dec 2014 📍 Beijing, China

- GPA: 3.83/4.0
- Ranking: 2/188

## Skills

### Programming

C/C++ • Python • MATLAB • Java

### Libraries and Tools

libigl • CGAL • PyTorch • scikit-learn  
CUDA • OpenCL • OpenGL  
CMake • Git • Shell •  $\LaTeX$

### Visual Editing

Illustrator • Photoshop • Premiere

### Languages

Chinese (Native speaker) • English (Fluent) • Japanese (Conversational)

## Honors

### WiGRAPH Rising Stars

ACM Community Group for Women in Computer Graphics Research

### Technology Award Winner:

#### Threadsteading

IndieCade'16

### National Scholarship

Beihang University

Awarded to top 1% students in academic performance.

### The First Prize Scholarship of Academic Performance

Beihang University

Awarded for 2010, 2011, 2012.

## Objective

Postdoctoral researcher with a Ph.D. in 2D/3D geometries, emphasizing line drawing processing, vector graphics, and non-photorealistic rendering. Currently expanding expertise in image generation. Eager to advance my skills in a research role, contributing to innovative 2D/3D geometry and vector graphics solutions.

## Research and Professional Experience

### Postdoctoral Researcher

DGP Lab, University of Toronto

📅 July 2023 - Present

📍 Toronto ON, Canada

- Collaborating with Professor Alec Jacobson on vector graphics
- Mentoring two undergrads; collaborating with two Ph.D. students

### Research Assistant

Digital Geometry Processing Group, UBC

📅 Sep 2016 - Jun 2023

📍 Vancouver BC, Canada

- Researched processing vector sketches (2D geometry processing)
- Assisted a patent agent for an application
- Resulted in five top-tier papers and one patent application

### Research Intern

Adobe Research

📅 May 2020 - Nov 2020

📍 Remote

- Conducted research on non-photorealistic line drawing generation
- Resulted in a patent application and a top-tier journal publication

📅 March 2023 - June 2023

📍 Toronto ON, Canada

- Conducted research on text-to-image generation

### Research Associate

Disney Research Pittsburgh

📅 Mar 2015 - Jul 2016

📍 Pittsburgh PA, USA

- Researched quilting pattern generation for CNC quilting machine
- Resulted in a conference paper and an award-winning game

### Intern, Software Development Engineer in Test

Microsoft Search Technology Center Asia

📅 Jul 2012 - Sep 2012

📍 Beijing, China

- Developed scripts for search data analysis, identifying a bug during internship

## Leadership Experience

### Guest Lecturer at UofT

📅 2023

- Led a lecture and coordinated a text-to-image generation assignment for 110 undergrads, under LEAF+ funding

### Student Representative at UBC

📅 2018

- Served on Graduate Student Recruiting Committee
- Conducted initial screening of applicant materials

### Teaching Assistant at UBC

📅 Parallel Computation, Winter 2 2016; Video Game Programming, Winter 2 2018;

📅 Geometric Modeling, Winter 1 2022

## Selected Publications (2 out of 9)

- **Chenxi Liu**, Toshiki Aoki, Mikhail Bessmeltsev, Alla Sheffer. "StripMaker: Perception-driven Learned Vector Sketch Consolidation". ACM ToG, 2023.
- **Chenxi Liu**, Pierre B enard, Aaron Hertzmann, Shayan Hoshiyari. "ConTesse: Accurate Occluding Contours for Subdivision Surfaces". ACM ToG, 2022. US Patent App. 17/466,670.