

# Haoda Li

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## EDUCATION

### UC Berkeley

MEng in Electrical Engineering and  
Computer Science

Aug 2022 - May 2023  
Berkeley, CA

### University of Toronto

BS in Computer Science and Data  
Science

Sept 2017 - Jun 2022  
Toronto, ON, Canada  
cGPA: 3.91 / 4.0

## SKILLS

### Programming Languages

Python • C++/C • JavaScript • Java • Go •  
R • MATLAB

### Computer Vision and Graphics

PyTorch • CUDA • OpenCV • NumPy •  
OpenGL/WebGL • Unity • Blender

### Web Full Stack

React • TypeScript • NodeJS • MySQL •  
MongoDB

### Softwares

AWS • Linux • Bash • Docker • Git •  $\LaTeX$

## TEACHING

### Teaching Assistant, U of Toronto

Computer Graphics | Winter 2022

Intro. Machine Learning | Fall 2021

Physics-based Animations | Fall 2021

## AWARDS

### UC Berkeley MEng Fung Excellence Scholarship

Jun. 2022 | Berkeley, CA

### Dr. James A. & Connie P. Dickson

Scholarship In Science & Mathematics

Oct. 2020 | Toronto, ON, Canada

### University College Special Admission

Scholarships

Sept. 2017 | Toronto, ON, Canada

## EXPERIENCE

### Huawei Canada | Software Engineer, Intern

May 2020 - Aug 2021 | Markham, ON, Canada

- Integrated cutting-edge video understanding algorithms for cloud-based video editing applications.
- Developed CUDA operators for deploying video retrieval models on various hardware.
- Assisted research on novel methods in hand tracking and action recognition.

### Vector Institute | Research Intern

Aug 2021 - May 2022 | Toronto, ON, Canada

- Researched on and published a novel method for robots to resemble objects with 3D sensors.
- Designed a new simulation environment for 3D object data generations.

### SysNet, University of Toronto | Research Intern

Jan 2022 - Aug 22 | Toronto, ON, Canada

- Researched on a novel method for efficient and editable 3D scene reconstruction and view synthesis.
- Developed CUDA accelerations kernels for GPU based point aggregations and differentiable physics based volume rendering.

### Easy Group Inc. | Full Stack Software Developer

Apr 2019 - May 2020 | Toronto, ON, Canada

- Managed the web services, CRM systems, and online shops serving for over 240,000 customers.
- Lead the development of automatic data pipeline for customer behavior analysis and product recommendations.

## PROJECTS

### Mverse | Software Developer

Jan 2021 - Jun 21 | Toronto, ON, Canada

Worked as a core contributor to *mverse*, an R package for multiverse analysis. The package extends R package multiverse with more friendly interfaces for analysts.

### iVis for Single Cell RNA-seq | Software Developer

Sept 2019 - Apr 20 | Toronto, ON, Canada

Designed and created the interactive application for processing and visualizing high-dimensional single cell RNA-seq data. Implemented GPU acceleration for single cell analysis algorithms and visualizations.

## PUBLICATIONS

- [1] CHEN, Y., LI, H., TURPIN, D., JACOBSON, A., AND GARG, A. Neural shape mating: Self-supervised object assembly with adversarial shape priors. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (2022), pp. 12724–12733.
- [2] RAO, V. R., KHALIL, M. I., LI, H., DAI, P., AND LU, J. Decompose the sounds and pixels, recompose the events. *Proceedings of the AAAI Conference on Artificial Intelligence* 36, 2 (Jun. 2022), 2144–2152.
- [3] RAO, V. R., KHALIL, M. I., LI, H., DAI, P., AND LU, J. Dual perspective network for audio visual event localization. In *European Conference on Computer Vision (ECCV)* (October 2022).