

# FENGGEN YU

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## EDUCATION & HONORS

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### **Simon Fraser University**

*2019-2024*

Ph.D. in Computing Science

SFU Graduate Fellowships, 2019-2022 (Top 10%)

SFU Graduate Dean's Entrance Scholarship, 2019-2023 (Top 5%)

### **Nanjing University**

*2016-2019*

Master. in Computer Science & Technology

Excellent Thesis of Master Degree, 2019 (Top 1%)

Excellent Graduate Student of Nanjing University, 2019 (Top 10%)

The National Scholarship of Graduate Student, 2018 (Top 3%)

### **Nanjing University**

*2012-2016*

B.S. in Computer Science & Technology

Excellent Undergraduate Student of Nanjing University, 2016 (Top 10%)

The National Scholarship of Undergraduate Student, 2015 (Top 3%)

The Jingchu Scholarship, 2014 (Top 20%)

The Renmin Scholarship, 2013 (Top 20%)

## RESEARCH INTERESTS

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3D Computer Vision

Computer Graphics

Intelligent 3D Content Creation and Editing

Geometry Modeling, Geometry Deep Learning and Shape Analysis

Multi-view Shape Reconstruction and Neural Radiance Field

## WORK EXPERIENCE

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### **Amazon, Imaging Science**

2023 Summer and Fall

*Applied Scientist Intern*

*Vancouver, Canada*

- Project Topic: 3D Shape Reconstruction From Sparse Views.

### **Amazon, Imaging Science**

2022 Summer and Fall

*Applied Scientist Intern*

*Vancouver, Canada*

- Project Topic: Hierarchical Active Learning for Fine-Grained 3D Part Labeling.

### **Meta, Reality Lab**

2021 Fall and Spring

*Student Researcher*

*Remote*

- Project Topic: 3D Human Ear Geometry Analysis and Reconstruction.

### **Huawei, 2012 Lab**

2021 Summer

*Research Engineer*

*Remote*

- Project Topic: 3D Object Reconstruction from Single View.

### **Autodesk, AI Lab**

2020 Summer-2021 Spring

*Research Collaboration*

*Remote*

- Project Topic: Reconstructing Compact CAD Shapes with Adaptive Primitive Assembly.

## PUBLICATIONS

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**Fenggen Yu**, Qimin Chen, Maham Tanveer, Ali Mahdavi-Amiri, Hao Zhang.  
D<sup>2</sup>CSG: Unsupervised Learning of Compact CSG Trees with Dual Complements and Dropouts.  
Arxiv Available.

**Fenggen Yu**, Yiming Qian, Francisca Gil-Ureta, Brian Jackson, Eric Bennett, Hao Zhang.  
HAL3D: Hierarchical Active Learning for Fine-Grained 3D Part Labeling.  
ICCV 2023.

**Fenggen Yu**, Zhiqin Chen, Manyi Li, Aditya Sanghi, Hooman Shayani, Ali Mahdavi-Amiri, and Hao Zhang.  
CAPRI-Net: Learning Compact CAD Shapes with Adaptive Primitive Assembly.  
CVPR 2022.

Jiongchao Jin, Arezou Fatemi, Wallace Lira, **Fenggen Yu**, Biao Leng, Rui Ma, Ali Mahdavi-Amiri and Hao(Richard) Zhang.  
RaidaR: A Rich Annotated Image Dataset of Rainy Street Scenes.  
ICCV 2021, Autonomous Vehicle Vision WorkShop.

Ali Mahdavi-Amiri, **Fenggen Yu**, Haisen Zhao, Adriana Schulz, and Hao Zhang.  
VDAC: Volume Decompose-and-Carve for Subtractive Manufacturing.  
SIGGRAPH Asia 2020.

**Fenggen Yu**, Kun Liu, Yan Zhang, Chengyang Zhu, Kai Xu.  
PartNet: A Recursive Part Decomposition Network for Hierarchical Segmentation of 3D Shapes.  
CVPR 2019.

**Fenggen Yu**, Yan Zhang, Kai Xu, Ali Mahdavi-Amiri, Hao Zhang.  
Semi-Supervised Co- Analysis of 3D Shape Styles from Projected Lines.  
Transaction On Graphics(TOG) 2018.

PanPan Shui, Pengyu Wang, **Fenggen Yu**, Bingyang Hu, Yuan Gan, Kun Liu, Yan Zhang.  
3D Shape Segmentation Based on Viewpoint Entropy and Projective Fully Convolutional Networks  
Fusing Multi-view Features.  
ICPR, 2018

Pengyu Wang, Yuan Gan, Panpan Shui, **Fenggen Yu**, Yan Zhang, Songle Chen, Zhengxing Sun.  
3D Shape Segmentation via Shape Fully Convolutional Networks.  
International Conference on Computer-Aided Design and Computer Graphics 2017

## SERVICES

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Computers & Graphics 2020-2023  
TVCG 2022, TPAMI 2022,  
ICCV 2023, CVPR 2023,

## TECHNIQUE STRENGTHS

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<b>Computer Languages</b>	Python, C++, Java, C#
<b>Tools</b>	Pytorch, Tensorflow, Pytorch-lightening, VTK, Trimesh, Pymesh