

# Yueting Li

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## Research Interest

Integrated Circuits, optimization/ML for IC design, EDA tools, open-source hardware

## Education

- ◇ **Stanford University**, Department of Electrical Engineering 2021 – 2023  
Master student in Electrical Engineering  
GPA: 3.96/4.0
- ◇ **Huazhong University of Sci & Tech (HUST)**, Department of Electrical Engineering 2016 – 2020  
B.E. in Electrical Engineering and Automation  
Cumulative GPA: 3.84/4.0 Major GPA: 3.96/4.0

## Publication

[Paper][Code][Video] “Joint Graph Convolution for Analyzing Brain Structural and Functional Connectome”  
**Yueting Li**, Qingyue Wei, Eshan Adeli, Kilian Pohl, Qingyu Zhao  
Medical Image Computing and Computer Assisted Intervention (MICCAI), 2022.

[Paper] “Deconvolutional Networks on Graph Data”  
Jia Li, Jiajin Li, Yang Liu, Jianwei Yu, **Yueting Li**, Hong Cheng  
Neural Information Processing Systems (NeurIPS), 2021.

## Poster and Presentation

- [Poster] “ALOE2: A Multi-Objective Analog Layout Automation Flow for the Open Source Ecosystem”
- [Slides] “Workforce development EDA Innovation using Open-Source Tools”

## Research Experience

- ◇ **Research Assistant, Murmann Mixed-Signal Group, Stanford University** 02/2022 – now  
Advisor: Boris Murmann  
- Built analog device standard cell library of different sizes using open-source tool Magic.  
- Led and developed the first open-source analog layout automation flow using the digital PnR tool and the above analog standard cell library.  
- Our analog layout automation flow enabled users to set objective functions (parasitics, area, matching of sensitive devices, et al.) and generated DRC & LVS error clean layout GDS directly from netlist [Code].  
- Taped out a bandgap reference circuit using our analog layout automation flow with SkyWater 130nm technology and open-source tools Magic, Netgen, Xschem and Mflowgen .
- ◇ **Research Assistant, CNS Lab, Stanford University** 09/2021 – 03/2022  
Advisor: Prof. Kilian Pohl  
- Preprocessed brain DTI and MRI images from the National Consortium on Alcohol and Neurodevelopment in Adolescence (NCANDA) public dataset.  
- Proposed the Brain Graph Convolutional Network (Brain-GCN) model, which uses brain multimodal DTI and MRI image data to predict the gender and age of each subject.  
- Our model reached SOA performance in brain network multi-modal based prediction (gender prediction accuracy: 84.9%, age prediction pearson’s correlation coefficient 0.364).  
- Presented at MICCAI 2022 conference.

- ◇ **Research Assistant, Nano Device Lab, National University of Singapore** 10/2019 – 11/2019  
 Advisor: Prof. Aaron Thean  
 - Worked on developing Bluetooth Low Energy biomedical wearable sensor monitoring stress, glucose et al  
 - Designed mobile software application for BLE biomedical wearable sensor using Android Studio.
  
- ◇ **Research Assistant, Systems Engineering, Chinese University of Hong Kong** 11/2020 - 09/2021  
 Advisor: Prof. Anthony Man-Cho So  
 - Solved the horse betting quadrella race problem for the Hong Kong Jockey Club.  
 - Realized large-scale telecommunication compressed sensing recovery with sparsity 5 out of 20000 entries with an error rate of 15.6% for noisy data in the complex domain using Orthogonal Matching Pursuit (OMP) and Iterative Hard-thresholding M-sparse (IHTM) algorithms [\[Code\]](#).  
 - Worked on inverse problems in graph learning including graph feature imputation and graph structure generation, which was published in NeurIPS 2021.

## Intern

- ◇ **Intern at Google CSR Summer Research** 06/2021 – 08/2021  
 Mentor: Prof. Tianxing Li at Michigan State University  
 - Designed audio and video multi-modal machine learning model to solve bandwidth asymmetric problem.  
 - Utilized audio-visual attention-based multi-modal model to form the audio-visual data fusion. Used the Pix2Pix GAN model to do the learn the complete video data.

## Teaching Experience

TA of Course Interconnection Networks (EE382C), Stanford University	01/2022 – 03/2022
TA of Course Introduction to Photonics (EE134), Stanford University	09/2021 – 12/2021
Peer mentor of a summer undergraduate research at Chinese University of Hong Kong	06/2021 – 08/2021
TA of undergraduate summer AI course at the National University of Singapore	08/2019
Volunteer Teaching in the rural senior high at Enshi, Hubei, China	08/2018

## Honors & Awards

MICCAI 2022 Travel Award	08/2022
Outstanding Undergraduate Award at HUST	06/2020
Scholarship for Academic Progress, school of Electrical Engineering, HUST	09/2018
Arts and Sports Scholarship, HUST	11/2017, 5/2017
Vice President, The Student Union of School of Electrical Engineering, HUST	09/2016 – 12/2018
Volunteer Service, Students' International Communication Association, HUST	09/2017 – 12/2017

## Skills

Programming Language: Python, Verilog, Shell script, YAML, Tcl, MATLAB, C++, Lua, R  
 Tools: PyTorch, TensorFlow, Virtuoso, Calibre