Yueting (Lily) Li

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Research Interest: VLSI design, CAD/EDA tools, open-source hardware, optimization/ML for IC modeling/layout/verification.

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

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 enables users to set objective functions (parasitics, net length, et al.) and generate 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 [Code].

◇ **Research Assistant, CNS Lab, Stanford University** 09/2021 – 03/2022
Advisor: 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).
– Built the team, summarized the work, and presented at MICCAI 2022 conference.

◇ **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 Macau casino.
– Realized large-scale (20000*20000) telecommunication compressed sensing recovery with high sparsity 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 with Prof. Jia Li at HKUST.

◇ **Research Assistant, Nano Device Lab, National University of Singapore** 10/2019 – 11/2019
Advisor: Prof. Aaron Thean
– Worked on developing BLE biomedical wearable sensor monitoring stress, glucose et al
– Designed mobile software application for BLE biomedical wearable sensor using Android Studio.

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.

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 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