

## EDUCATION

- **University of Michigan – College of Literature, Science, and the Arts** Michigan, U.S.A.  
*Bachelor of Computer Science; Majored GPA – 4.0/4.0* Aug. 2021 - May. 2023
- **University of Michigan – College of Literature, Science, and the Arts** Michigan, U.S.A.  
*Bachelor of Honor Math (Honor Program); GPA – 3.751/4.0* Aug. 2021 - May. 2023
- **Shanghai Jiao Tong University – UM-SJTU Joint Institute** Shanghai, China  
*Bachelor of Electrical and Computer Engineering; GPA – 3.6/4.0* Aug. 2019 - May. 2023

## RESEARCH EXPERIENCE

- **Deep Learning Foundation** CoE, UMich, Michigan, U.S.A.  
*Undergraduate Researcher* Mar. 2022 - Present
  - **General:** Fundamental Understanding of Deep Neural Network with Theoretical Analysis supported by SURE Program.
  - **Intrinsic Dimension:** Characterizing the effect of dimensionality and the hardness of estimation which.
- **Graph Neural Network Theory** SI, UMich, Michigan, U.S.A.  
*Undergraduate Researcher* Feb. 2022 - Present
  - **General:** Theoretical analysis on generalization ability of non-i.i.d. semi-supervised node-level tasks.
  - **Success of GNN:** Toward understanding the success of GNN and pitfalls of using GCN (graph convolution network).
- **Fast Graph Algorithm** CoE, UMich, Michigan, U.S.A.  
*Undergraduate Researcher* Mar. 2022 - Present
  - **General:** Understanding the compact cuts representation and their implication on network failure detection.
  - **Finding Balanced Separator:** Improve the 15 years barrier of finding small balanced separator in almost linear time.
- **Travel the Same Path: A Novel Approach** CoE, UMich, Michigan, U.S.A.  
*Undergraduate Researcher* Jan. 2022 - Apr. 2022
  - **General:** Using imitation learning to speed up deterministic algorithm while maintaining the exactness of the solution.
  - **Derandomization:** Demonstrate a potential next step of using AI to solve combinatorial optimization.

## TEACHING EXPERIENCE

- **EECS572 Randomness and Computation** CoE, UMich, Michigan, U.S.A.  
*Instructional Aide* Aug. 2022 - Dec. 2022
  - **General:** Collaborated with the teaching staff as an instructional aide of an 80+ student course on the theory CS track.
  - **Discussion & Office Hour:** Hold discussion sections and weekly OH to reinforce conceptual understanding and review course material.
- **VV285 Honor Mathematics III** UM-SJTU JI, SJTU, Shanghai, China  
*Instructional Aide* Mar. 2021 - Aug. 2021
  - **General:** Collaborated with the teaching staff as an instructional aide of a 150+ student course on the main ECE track.
  - **Discussion & Office Hour:** Hold discussion sections and weekly office hours to reinforce conceptual understanding and review course material.
  - **Competition:** Hold the 1<sup>st</sup> UM-SJTU JIntegration Bee competition
- **VV186 Honor Mathematics II** UM-SJTU JI, SJTU, Shanghai, China  
*Instructional Aide* Sep. 2020 - Dec. 2020
  - **General:** Collaborated with the teaching staff as an instructional aide of a 200+ student course on the main ECE track.
  - **Discussion & Office Hour:** Hold discussion sections and weekly office hour to reinforce conceptual understanding and review course material.

## HONORS AND AWARDS

- **Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship** SJTU, Shanghai, China  
*First Price (Ranked 2) among all HK, MC and TW students in SJTU* Oct. 2021
- **Undergraduate Excellent Scholarship** SJTU, Shanghai, China  
*Third Price among all students in UM-SJTU JI* Nov. 2020
- **Bao Gang Excellent Scholarship** SJTU, Shanghai, China  
*Ranked 3 among all Taiwan students in SJTU* Jun. 2020
- **Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship** SJTU, Shanghai, China  
*Ranked 1 among all HK, MC and TW students in UM-SJTU JI* Dec. 2019