Pingbang Hu

EDUCATION

University of Michigan - College of Literature, Science, and the Arts Ann Arbor, Michigan Bachelor of Computer Science; Majored GPA - 4.0/4.0 Aug. 2021 - May. 2023 University of Michigan - College of Literature, Science, and the Arts Ann Arbor, Michigan 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, Ann Arbor, Michigan

Mar. 2022 - Present

Email: pbb@umich.edu Mobile: (+1) 734 882 7750

 $Undergraduate\ Researcher$

- General: Fundamental Understanding of Deep Neural Network with Theoretical Analysis supported by SURE Program.
- o Kernel Learning v.s. Deep Learning: Analysis on Kernel Learning and the Relation between Deep Neural Network

Graph Neural Network Foundation

SI, UMich, Ann Arbor, Michigan

Undergraduate Researcher

Feb. 2022 - Present

- o General: Theoretical analysis on generalization ability of non-i.i.d. semi-supervised node-level tasks.
- Expansion: Following the line of work by Tengyu Ma with generalizations on graph-based neural network.

Fast Graph Algorithm $Undergraduate\ Researcher$

CoE, UMich, Ann Arbor, Michigan

Mar. 2022 - Present

- General: Analysis on the size of the network failure detection set on different graph and various constraints.
- Data Structure: Deep understanding on compact vertex cuts representation.
- Probabilistic Methods: Analysis on randomized algorithm along with classical learning theory notions.

Teaching Experience

EECS572 Randomness and Computation

CoE, UMich, Ann Arbor, Michigan

Aug. 2022 - Dec. 2022

 $Instructional\ Aide$

- o General: Collaborated with the teaching staff as an instructional aide of a 100+ student course on the main CS track.
- o Discussion Course: Taught discussion sections to reinforce conceptual understanding and review course material.
- Office Hours: Offered weekly office hours to ensure the student experience was as smooth as possible.

VV285 Honor Mathematics III

UM-SJTU JI, SJTU, Shanghai, China

Mar. 2021 - Aug. 2021

- General: Collaborated with the teaching staff as an instructional aide of a 150+ student course on the main ECE track.
- o Discussion Course: Taught discussion sections to reinforce conceptual understanding and review course material.
- Office Hours: Offered weekly office hours to ensure the student experience was as smooth as possible.
- Competition: Hold the 1st UM-SJTU JIntegration Bee competition

VV186 Honor Mathematics II

UM-SJTU JI, SJTU, Shanghai, China Sep. 2020 - Dec. 2020

 $Instructional\ Aide$

Instructional Aide

o General: Collaborated with the teaching staff as an instructional aide of a 200+ student course on the main ECE track.

- o Discussion Course: Taught discussion sections to reinforce conceptual understanding and review course material.
- Office Hours: Offered weekly office hours to ensure the student experience was as smooth as possible.

Software Development Experience

Ranked 1 among all HK, MC and TW students in UM-SJTU JI

FoodAll Virtual, Taiwan

Backend Developer

Aug. 2020 - Mar. 2021

Dec. 2019

o General: A food order platform in Taiwan, built with Golang and Gin, MongoDB, with RESTful API design.

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