Shuangrui DING

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EDUCATION

University of Michigan **Ann Arbor, MI**
B.S.E. in Computer Science *Sept 2019 - May 2021(expected)*
Overall GPA: **4.0/4.0**

University of Michigan - Shanghai Jiao Tong University Joint Institute **Shanghai, China**
B.S.E in Electrical and Computer Engineering *Sept 2017 - Aug 2021(expected)*
Overall GPA: **3.82/4.0**, Rank: **13/253**.

PUBLICATIONS AND MANUSCRIPTS(* INDICATES EQUAL CONTRIBUTION)

[1]Jiaqi Ma*, Shuangrui Ding*, Qiaozhu Mei, "Black-Box Adversarial Attacks on Graph Neural Networks with Limited Node Access", *NeurIPS 2020*

RESEARCH EXPERIENCES

Foreseer Group, UM *Oct 2019 - June 2020*
Research Assistant, Supervised by Prof. Mei
Project 1: Adversarial attack on graph neural networks *Feb 2020 - June 2020*
Objective: Conduct a black-box attack on general GNN models

- Propose a novel setup of black-box attack on GNNs with limited node access.
- Demonstrate that the structural inductive biases of GNNs can be exploited as source of black-box attacks and analyze the discrepancy between classification loss and accuracy.
- Propose and verify empirically a practical greedy method to attack node classification tasks.

Project 2: Adversarial GAT *Oct 2019 - Jan 2020*
Objective: Build interpretable GNN models through the adversarial attention mechanism

- Propose a new model design to make the attention attribute of GAT model more expressive.

John Hopcroft Center for Computer Science, SJTU *Jan 2019 - Jun 2019*
Research Assistant, Supervised by Prof. Jin
Project: Shenzhen traffic prediction
Objective: Predict passenger flow for scheduling a dynamic bus timetable

- Implement the crawling of Shenzhen traffic data using Python and Gaode API
- Visualize the number of passengers during unit time section on each bus per station

AWARDS

UM Dean's List	Dec 2019
SJTU Undergraduate Excellent Scholarship	Nov 2018&2019
UM-SJTU Junyuan Tang Scholarship Candidate	Aug 2019
Finalist in Mathematical Contest in Modeling (Top 0.3%)	Apr 2019
UM-SJTU John Wu & Jane Sun Sunshine Scholarship (Top 5%)	Nov 2018
National Scholarship (Top 2%)	Sep 2018

SKILLS

Programming Languages: Python(Pytorch), C/C++, Java, SQL, Matlab
Natural Languages: Chinese, English