# **Yiqun DIAO**

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### **EDUCATION**

# High School Afflicted to Nanjing Normal University, China

09/2014 to 06/2017

• Top 1% in College Entrance Exam

#### Shanghai Jiao Tong University (SJTU), China

09/2017 to 06/2021

- Bachelor in Computer Science and Technology;
  - Major GPA: 93.59/100 or 4.08/4.3 Rank: 1/150
- Selected in Zhiyuan **Honors** Program of Engineering (Top 5%)

Core courses include:

**Math:** Calculus I (95), Analysis II (**Honors**, 96), Linear Algebra (100), Discrete Mathematics (Part I: 100, Part II: 95), Probability and Statistics (100), Signals and Systems (96)

CS: Programming (Python: 97, C++: 100), Data Structure (99), Circuit Systems (96), Algorithm and Complexity (99), Operating System (Theory: 96, Lab: 98), Computer Architecture (Theory: 91, Lab: 97), Embedded System (94), Database System (98), Data Science (100), Machine Learning (94)

#### The University of Texas at Austin (UT Austin), USA

08/2019 to 12/2019

• Exchange student in Computer Science; GPA: 4.0/4.0 University Honors

Straight A's (highest grade) for 4 upper-level courses in CS:

Artificial Intelligence, Theory of Computation, Computer Networks, Undergrad Research

#### **PUBLICATIONS**

[1] Lixin Yang, Jiasen Li, Wenqiang Xu, **Yiqun Diao**, and Cewu Lu. Bihand:Recovering hand mesh with multi-stage bisected hourglass networks. *ArXiv*, abs/2008.05079, 2020.[Accepted by BMVC2020]

### RESEARCH EXPERIENCE

# **Exploring Non-iid Scenario in Federated Learning**

06/2020 to present

Research Assistant, supervised by Prof Bingsheng He (CS Department, NUS)

<u>Description</u>: This project studies how non-iid data partition affects performance of federated learning.

- Summarize previous methods and add more data partition methods to project FedMA
- Run a benchmark result for federated average algorithm

#### **Learning to Classify Carotid Artery Severity**

09/2019 to 01/2020

Independent Research, supervised by Prof Chandrajit Bajaj (CS Department, UT Austin)

<u>Description:</u> This study uses various methods to classify the severity of carotid artery.

- Learn the textbook *Deep Dive* and implement those methods with our own carotid data
- Revise the code of Augmented Neural Ode Net and adjust it to get a prediction of ~80% accuracy
- Read about some learning theory and try to explain experimental results

Learning to Classify 3D Mesh

07/2019 to 06/2020

Research Assistant, supervised by Prof Cewu Lu (CS Department, SJTU)

<u>Description:</u> This study aims to use new structures to extract 3D mesh information.

- Use GCN method to replace convolutional layer to reconstruct 3D mesh
- Participate in experiments to recover 3D hand mesh and collaboratively write a paper

### **TEACHING EXPERIENCE**

CS 262: Computational, Mathematical & Statistical Foundations of Machine Learning

• Teaching Assistant in SJTU, Summer 2020

### **HONORS & AWARDS**

- SJTU Class A Scholarship (Top 1%)
- National Scholarship for Undergraduate in 2018 (Top 2%)
- Meritorious Winner in Mathematical Contest In Modeling in 2018 (Top 10%)

# **LANGUAGES AND SKILLS**

Chinese (native), English (fluent)

• TOEFL: 109 (Writing: 29, Speaking: 24) GRE: 153 (V) + 170 (Q) + 3.5 (AW)

**Programming:** Python (tensorflow, torch), C++, Matlab, LaTeX