DIXI YAO

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University of Toronto   Toronto, Canada
M.A.Sc, Department of Electrical and Computer Emgineering   *Sept. 2022 –*
- Advisor: Prof. Baochun Li.

Shanghai Jiao Tong University   Shanghai, China
BEng, Department of Computer Science   *Aug. 2018 – Jun. 2022*
- AI Honors Program. Bachelor Thesis: **Research on privacy preserving methods via Transformer**
- Advisor: Prof. Liyao Xiang, Prof. Xinbing Wang. Theme: Intelligent Edge

Max Planck Institute for Informatics   Saarbrücken,Germany
Research Intern Fellowship   *Jul. 2021 – Dec. 2021*
- Advisor: Prof. Yiting Xia. Theme: **Distributed Deep Learning Benchmark**

PUBLICATIONS

Privacy-Preserving Split Learning via Patch Shuffling over Transformers
Proc. IEEE International Conference on Data Mining (ICDM), Orlando, USA   *Nov 28 - Dec 1, 2022*
- **Dixi Yao**, Liyao Xiang, Hengyuan Xu, Hangyu Ye, Yingqi Chen

Context-Aware Compilation of DNN Training Pipelines across Edge and Cloud
Proc. ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)   *Vol. 5, No. 4, 2021*
- **Dixi Yao**, Liyao Xiang, Zifan Wang, Jiayu Xu, Chao Li, Xinbing Wang

Federated Model Search via Reinforcement Learning
Proc. IEEE International Conference on Distributed Computing Systems (ICDCS), USA   *July 7-10, 2021*
- **Dixi Yao***, Lingdong Wang*, Jiayu Xu, Liyao Xiang, Shuo Shao, Yingqi Chen, Yanjun Tong

Context-Aware Deep Model Compression for Edge Cloud Computing
Proc. IEEE International Conference on Distributed Computing Systems (ICDCS), Singapore   *July 8 - 10, 2020*
- Lingdong Wang, Liyao Xiang, Jiayu Xu, Jiaju Chen, Xing Zhao, **Dixi Yao**, Xinbing Wang, Baochun Li

UNDER REVIEW PAPERS

- First authored paper submitted to ICML2023.
- Fourth authored paper submitted to ICML2023.
- First authored paper submitted to MobiCom2023.

ACADEMIC PRESENTATION AND LECTURES

- Oral presentation *Privacy-Preserving Split Learning via Patch Shuffling over Transformers* in ICDM2022.
- Oral presentation *Context-Aware Compilation of DNN Training Pipelines across Edge and Cloud* in Ubicomp2022.
- Oral presentation *Federated Model Search via Reinforcement Learning* in ICDCS2021.
- Opened two open lectures for **SJTU CS149 Data Structure** (over **100** students participated).
- Opened winter online lecture *How to study well during COVID19?* (over **1000** students participated).

Paper Reviews

- 2023 IEEE/ACM International Symposium on Quality of Service.
- 2023 ACM Multimedia Systems Conference.
- 2022 IEEE the 8th International Conference on Computer and Communications (ICCC).

Teaching Experiences

- Teaching Assistant: UofT ECE243 Computer Organization. 2023 Winter
- Course Lab Designer: SJTU EE447 Mobile Internet. 2021 Fall
- Teaching Assistant: SJTU MA500 Application of fuzzy Math. 2021 Winter
- Online material coordinator: SJTU CS214 Algorithm and Complexity. 2021 Winter

Selected Scholarships and Awards

- **Czeslaw and Irene Klawe Scholarship. 2023**
- **Ewing Rae Graduate Scholarship. 2023**
- **Edward S. Rogers Sr. Graduate Scholarships. 2022, 2023**
- **Shanghai Jiao Tong University outstanding graduates. 2022**
- **National outstanding college student project of innovation. 2022**
- **Alumni Foundation Scholarship:** Awarded to only *0.5%* of students in the School of Electronic Information and Electrical Engineering. 2021
- **Huawei Scholarship:** Awarded to the top *1%* in the School of Electronic Information and Electrical Engineering. 2020
- **East Dong Business Scholarship:** Awarded to only *1* student in the Department of Computer Science. 2019
- **Honor for outstanding students:** Awarded to only *2%* of students in the School of Electronic Information and Electrical Engineering. 2019, 2020, 2021,2022
- **First prize** in China Collegiate Mathematics contest. 2019
- **First prize** in National Olympiad in Informatics. 2017 (during high school.)

Open Source Community Participated

- Plato | iQua Research group.
- Shanghai Jiao Tong University open source hardware community.

Selected Open Source Projects (More on Github)

- Optimization over Client Selection in Efficient Federated Learning | Python | code
- Navigating Tooth Extraction UR5 | Python, C++ | code
- Simulated Five level pipeline CPU | Verilog | code
- Cloud Solidwork Application | Python, PHP | code
- Communication Between Machine and Human | Python | code
- Projection and Transformation: How to Construct a Good Model | Python | code
- Extend Structure Entropy of Graph | Python | code
- MentorRelate | Python, Web | code

SELECTED TECHNIQUE REPORTS AND ARTICLES

- Towards Hybrid Fuzzing with Multi-level Coverage Tree and Reinforcement Learning in Greybox Fuzzing| paper
- ASD Saliency Map Prediction and Discrimination Based on SalGAN | paper
- Computer Ethnics and Cyperpunk | paper

SOCIAL ACTIVITIES

- Member of SJTU SEIEE reserve of talents for academic guidance, 2020, 2021, 2022.
- Member of Study Assistance Committee in the School of Electronic Information and Electrical Engineering in Shanghai Jiao Tong University. 2018, 2019, 2020, 2021, 2022.
- Department Leader of Propaganda in students' committee under SJTU Office of Undergraduate Education. 2020, 2021
- IBM Hackathon in 2019.
- Final 16 teams in Shanghai Jiao Tong University RoboMaster Robotics Competition, team leader.
- Shanghai Jiao Tong University Capture-the-flag competition.
- Shanghai Jiao Tong University Blockchain knowledge competition.
- International volunteer in Sri Lanka.
- Volunteer for Shanghai 2022, Shanghai Marathon.