Yuxin Tang

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EDUCATION

Ph.D.	Computer Science, Rice University, 2018-Present Advisor: Chris Jermaine
B.S.	Computer Science, Shanghai Jiao Tong University, 2014-2018

RESEARCH AREAS

Large-scale machine learning, data management for machine learning
Distributed machine learning, on-device machine learning, federated learning

INTERNSHIP

2022   ByteDance, Mountain View, CA
Applied Machine Learning

- Implemented view (subgraph, edge-perturbation) for graph self-supervised learning
- Implemented the MVGRL model on ByteGNN and improve overall accuracy by 5%.

2018   Pygmal Technologies, Shanghai

- Formalized one cryptocurrency trading platform front-end design
- Developed one cryptocurrency trading platform mobile application using Flutter 2.0

2017-2018   Intel Asia-Pacific Research & Development Ltd, Shanghai
Javascript Technology Center

- Improved average page load speed by around 5% for JavaScript engine in Chrome V8
- Submitted 10 more patches for Chromium Speedometer 2.0 benchmark
- Identified possible performance optimization for web-assembly (wasm) opencv.js benchmark by JIT compilation

PUBLICATION

2023   **Auto-Differentiation of Database Queries for Very Large Scale Machine Learning.**
Yuxin Tang, Zhimin Ding, Dimitrije Jankov, Binhang Yuan, Daniel Bourgeois, Chris Jermaine.
In submission.

2022   **Distributed learning of fully connected neural networks using independent subnet training.**
Binhang Yuan, Cameron R. Wolfe, Chen Dun, Yuxin Tang, Anastasios Kyrillidis, Chris Jermaine.
VLDB'22

2021	**Federated Multiple Label Hashing (FedMLH): Communication Efficient Federated Learning on Extreme Classification Tasks.**
	Yuxin Tang, Zhenwei Dai, Chen Dun, Anastasios Kyrillidis, Anshumali Shrivastava.
	ICML-FL'21
2021	**Tensor Relational Algebra for Machine Learning System Design.**
	Binhang Yuan, Dimitrije Jankov, Jia Zou, Yuxin Tang, Daniel Bourgeois, and Chris Jermaine.
	VLDB'21
2020	**Programmable In-Network Security for Context-aware BYOD Policies.**
	Qiao Kang, Lei Xue, Adam Morrison, Yuxin Tang, Ang Chen, Xiapu Luo.
	USENIX Security'20
2018	**A Programmable, Hardware-Assisted Network Protocol Fuzzer.**
	Yuxin Tang, Ang Chen.
	OSDI'18
2017	**Exploring Simulation of Software-Defined Underwater Wireless Networks.**
	Li Wei, Yuxin Tang, Yuching Cao, Zhaohui Wang, Mario Gerla.
	MobiCom'17 Workshop on Underwater Networks

AWARDS

2022	ICML travel grant
2020	Ken Kennedy Institute Computational Science and Engineering Fellowship ($15,000/4 years)
2017	Hongyi Scholarship (¥25,000)
2016	Gold Medal, International Genetically Engineered Machine Competition
2015	Chun-Tsung Scholar (funded by Nobel Prize Winner T. D. Lee) (¥15,000)
2014	Scholarship of Academic Excellence of SJTU

SERVICE

Conference Reviewer:
ICML 2021, ICML 2022, NeurIPS 2022