

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

Journal Reviewer:

ACM Transactions on Database Systems (TODS)