

Weizhao Tang

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Personal Page
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Education

- **Carnegie Mellon University** Pittsburgh, PA
Ph.D., Electrical and Computer Engineering Aug 2018 - present
- **Carnegie Mellon University** Pittsburgh, PA
M.S., Electrical and Computer Engineering, QPA: 3.9/4.0 Aug 2018 - May 2021
- **Tsinghua University** Beijing, China
B.E., Electrical and Electronics Engineering, GPA: 92/100 (top 7%) Aug 2014 - Jul 2018

Publications

- **Weizhao Tang**, Peiyao Sheng, Pronoy Roy, Xuechao Wang, Giulia Fanti, Pramod Viswanath. (2023) Raft-Forensics: High Performance CFT Consensus with Accountability for Byzantine Faults. Under submission to USENIX Security 2024.
- **Weizhao Tang**, Lucianna Kiffer, Giulia Fanti, Ari Juels. Strategic Latency Reduction in Blockchain Peer-to-Peer Networks. In ACM SIGMETRICS 2023.
- Vibhaalakshmi Sivaraman, **Weizhao Tang**, Shaileshh Bojja Venkatakrishnan, Giulia Fanti, Mohammad Alizadeh. The Effect of Network Topology on Credit Network Throughput. In ACM IFIP 2021.
- **Weizhao Tang**, Giulia Fanti, Weina Wang, Sewoong Oh. Privacy-Utility Tradeoffs in Routing Cryptocurrency over Payment Channel Networks. In ACM SIGMETRICS 2020.
- Vaishnavi Subramanian, **Weizhao Tang**, Benjamin Chidester, Jian Ma, Minh N. Do. Integration of Spatial Distribution in Imaging-Genetics. In MICCAI 2018.

Experience

- **Game Theory in Automated Market Makers** CMU
Advisors: Giulia Fanti, Rachid Elazouzi September 2023 - present
 - Proposed game models involving multiple liquidity providers and a new reward splitting scheme
 - Showed encouragement of liquidity providing by analysis of Nash equilibrium
- **Economic Modeling of Cryptocurrency Ponzi Schemes** CMU
Advisors: Giulia Fanti, Pramod Viswanath; Lead Student: Peiyao Sheng November 2022 - present
 - Collected data of collapsed crypto projects and built financial models for existing multi-coin systems.
 - Analyzed the roles of ponzi schemes in collapsed and existing crypto projects.
- **Ethereum Gas Price Prediction** Internship at Chainlink
Advisor: Farinaz Koushanfar May 2021 - Aug 2021
 - Analyzed data from the perspective of time series prediction and causal inference.
 - Implemented quantile, ARIMA, RNN and transformer price predictors and achieved 3% cost reduction at the same accuracy level.

- **Identifying Duplicate Quora Questions**

CMU

Course Project, Machine Learning

Oct 2018 - Dec 2018

- Implemented an NLP model in PyTorch which identifies conceptually identical questions on Quora by taking advantage of both LSTM and Distributed Bag-of-Words (DBoW) features.
- Accuracy was improved by 7% with mutual attention, DBoW and feature engineering tricks, and was only about 1% lower than state-of-art level.

Awards

Presidential Fellowship granted by CMU

Sep 2018

3× Scholarships for Academic Excellence

Sep 2015 - Sep 2017

2nd Prize in China Undergraduate Physics Tournament (CUPT)

May 2015

Gold Medal in Chinese Mathematical Olympiad (CMO)

Dec 2013

Teaching Assistant

- **CMU 18-660: Optimization**

Pittsburgh, PA

Instructor: Giulia Fanti

Spring 2021

- **CMU 18-730: Introduction to Computer Security**

Pittsburgh, PA

Instructor: Virgil Gligor

Fall 2021

Skills

Python, C/C++, Java, JavaScript, GoLang, Assembly, Solidity, PyTorch, Tensorflow, Git