Yuzhe Tang

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Appointments

2022 - Now	Associate Professor, Department of EECS, Syracuse University
2014 - 2022	Assistant Professor, Department of EECS, Syracuse University

Education

Ph.D.	*Georgia Institute of Technology* (Atlanta, GA USA), 2009-2014
M.Sc.	*Fudan University* (Shanghai, China), 2006-2009
B.Sc.	*Fudan University* (Shanghai, China), 2002-2006

Research Interests

I am interested in the intersection between cybersecurity and systems. My research mission is to bring**systems security and efficiency to large-scale, emerging/evolving infrastructures and applications**. 1) On the cyber-security front, I am interested in applying formal methods, protocol analysis, automated program analysis, and software testing techniques to discover vulnerabilities, detect attacks, and design secure systems. I am also interested in the security-oriented measurement of large-scale systems. 2) On the systems front, I am interested in workload analysis, benchmarking, design of optimization schemes and middleware in various host systems.

My recent research focuses on decentralized systems like public blockchains. I tackle the systems security/efficiency challenges at different blockchain layers, including application-level DeFi protocol, smart contracts, down to the systems-level consensus implementations, P2P networking, and web3.0 infrastructures. I am particularly interested in discovering and fixing design flaws in blockchains and DeFi applications using formal methods. My recent research on blockchain mempool security is well recognized in the Ethereum/blockchain developer community. Besides, I am developing and disseminating blockchain educational materials.

In the past, I worked on confidential computing, trusted execution environments, applied privacy-preserving protocols, and cloud security.

Research Funds

- Total amount: 2.01 million USD
- My share: 1.87 million USD
    - 1.43 million USD from NSF

2022-2025	CNS Core: Small: One Size doesn't Fit All: Workload-Aware Cost Optimization for Decentralized Applications on Blockchains Yuzhe Tang (Single PI), $498,624 (100%) National Science Foundation (**NSF**)
2022-2023	DoS-secure transaction propagation on Ethereum: Exploit generation and attack detection Yuzhe Tang (Single PI), $84,392 (100%) Ethereum Foundation
2021-2024	Collaborative Research: SaTC: EDU: Developing Instructional Laboratories for Blockchain Security Applications, Yuzhe Tang (PI), Jing Lei, Farzana Rahman, Hongmei Chi. Total: $399,995 + $16,000 (REU), my share: $356,000 (86%) National Science Foundation (**NSF**)
2018-2022	SaTC: Small: External Obliviousness in Trusted Execution Environments Yuzhe Tang (Single PI), $496,999 + $16,000 (100%) National Science Foundation (**NSF**)
2019-2020	Planning IUCRC Syracuse University: Center for High-Assurance Secure Systems and IoT (CHASSI) Shiu-Kai Chin (PI), Yuzhe Tang (Co-PI), $15,000 National Science Foundation (**NSF**)

2018-2020	SGX-based Key-Management Applications in the Cloud Yuzhe Tang (Single PI), $9,996 (100%) Intel Gift
2017-2018	Cryptographic Engineering on Modern Trusted Platforms Yuzhe Tang (PI), Wenliang Du (Co-PI) Total: $300,000, my share: $200,000 (66%) National Security Agency (**NSA**)
2017-2017	Secure Multi-Party Databases by Oblivious Query Translation and Execution Yuzhe Tang (PI), $13,200 (100%) Air Force Research Lab Visiting Faculty Research Program
2015-2016	Optimizing Privacy-Preserving Analytics in Information Networks Yuzhe Tang (PI), $69,861 (100%) Cyber Research Institute (CRI)
Bug bounty awards	Bug bounty from Ethereum Foundation $12,000 (2021), $2000 (2022) Bug bounty from OpenEthereum/Parity $8,000 (2021)

Internal Grants

2021-2023	Workload-Adaptive Designs for Cost-Effective Decentralized Applications on Blockchains Yuzhe Tang (Single PI), $21,000, CUSE Grant (Syracuse University Internal Grant)
2018-2020	On-Campus Blockchain Applications for Education and Beyond Wenliang Du (PI), Yuzhe Tang (Co-PI), $30,000 CUSE Grant (Syracuse University Internal Grant)
2018-2020	Efficient Algorithms for Secure, Large-Scale Graph Mining Yuzhe Tang (PI), Sucheta Soundarajan (Co-PI), $30,000 CUSE Grant (Syracuse University Internal Grant)

Publications

- Underline indicates students advised by Dr. Yuzhe Tang

EthiCS 23	Ethical Challenges in Blockchain Measurement Research Yuzhe Tang, Kai Li, Yibo Wang, Jiaqi Chen The 2nd International Workshop on Ethics in Computer Security (EthiCS 2023), Co-located with NDSS 2023
TSE 23	Towards Saving Blockchain Fees via Secure and Cost-Effective Batching of Smart-Contract Invocations Yibo Wang, Kai Li, Jiaqi Chen, Yuzhe Tang, Qi Zhang, Xiapu Luo, Ting Chen TSE (IEEE Transactions on Software Engineering)
ConsensusDay 22	Towards the Comprehensive Understanding of Ethereum Mempool DoS Security Yibo Wang, Kai Li, Yuzhe Tang Consensus Day 22, Co-located with CCS 2022
CCS 22p	Enabling Cost-Effective Blockchain Applications via Workload-Adaptive Transaction Execution Yibo Wang, Yuzhe Tang ACM Conference on Computer and Communications Security (CCS) 2022, Poster
CCS 21	*DETER: Denial of Ethereum's Txpool-basEd seRvices* Kai Li, Yibo Wang, Yuzhe Tang ACM Conference on Computer and Communications Security (CCS) 2021
IMC 21	*TopoShot: Uncovering Ethereum's Network Topology Leveraging Replacement Transactions* Kai Li, Yuzhe Tang, Jiaqi Chen, Yibo Wang, Xianghong Liu ACM Internet Measurement Conference (IMC) 2021 Acceptance rate=28%
NDSS 21	*As Strong As Its Weakest Link: How to Break Blockchain DApps at RPC Service* Kai Li, Jiaqi Chen, Xianghong Liu, Yuzhe Tang, XiaoFeng Wang, Xiapu Luo The Network and Distributed System Security Symposium (NDSS) 2021 Acceptance rate=15.2%
FSE 21	*iBatch: Saving Ethereum Fees via Secure and Cost-Effective Batching of Smart-Contract Invocations* Yibo Wang, Qi Zhang, Kai Li, Yuzhe Tang, Jiaqi Chen, Xiapu Luo, Ting Chen ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) 2021 Acceptance rate=24.5%
Middleware 21i	*Authenticated Key-Value Stores with Hardware Enclaves* Kai Li, Yuzhe Tang, Qi Zhang, Jianliang Xu, Ju Chen

ACM/IFIP Middleware 2021 (Industrial track)

ToNSE 21 *VFChain: Enabling Verifiable and Auditable Federated Learning via Blockchain Systems*
Zhe Peng, Jianliang Xu, Xiaowen Chu, Shang Gao, Yuan Yao, Rong Gu, Yuzhe Tang
IEEE Transactions on Network Science and Engineering (ToNSE) 2021

Middleware 20 *Cost-Effective Data Feeds to Blockchains via Workload-Adaptive Data Replication*
Kai Li, Yuzhe Tang, Jiaqi Chen, Zhehu Yuan, Cheng Xu, Jianliang Xu
ACM/IFIP Middleware conference 2020
Acceptance rate=25.2%

SERIAL 20 *Scalable Log Auditing on Private Blockchains via Lightweight Log-Fork Prevention*
Yuzhe Tang, Kai Li, Yibo Wang, Sencer Burak Somuncuoglu
Workshop on Scalable and Resilient Infrastructures for Distributed Ledgers 2020, co-located with ACM/IFIP Middleware conference 2020

ICDE 19 *GEM^2-Tree: A Gas-Efficient Structure for Authenticated Range Queries in Blockchain*
Ce Zhang, Cheng Xu, Jianliang Xu, Yuzhe Tang, Byron Choi
IEEE 36th International Conference on Data Engineering (ICDE) 2020
Acceptance rate=26.8%

SecureComm19 *Secure Consistency Verification for Untrusted Cloud Storage by Public Blockchains*
Kai Li, Yuzhe Tang, Beom Heyn Kim, Jianliang Xu
SecureComm 2019

SecureComm19 *Authenticated LSM Trees with Minimal Trust*
Yuzhe Tang, Ju Chen, Kai Li
SecureComm 2019 (Short paper)

CISSE 19 *Hands-on Labs for Secure Programming on Modern Trusted Platforms*
Yuzhe Tang, Wenliang Du
The Colloquium For Information Systems Security Education, 2019

ASONAM 19p *Computing Node Clustering Coefficients Securely*
K. Areekijseree, Yuzhe Tang, Sucheta Soundarajan
IEEE ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), 2019, Poster

SecureComm18 *Secure and Efficient Multi-Party Directory Publication for Privacy-Preserving Data Sharing*
K. Areekijseree, Ju Chen, Yuzhe Tang, Shuang Wang, Arun Iyengar and B. Palanisamy
SecureComm 2018, Acceptance rate=30.6%

Cloud 18 *ChainFS: Blockchain-Secured Cloud Storage*
Qiwu Zou, Yuzhe Tang, Ju Chen, Kai Li, Charles Kamoua, Kevin Kwiat, Laurent Njilla
IEEE Cloud 2018, Acceptance rate=20%

Cloud 18 Pinchao Liu, Liting Hu, Hailu Xu, Zhiyuan Shi, Jason Liu, Qingyang Wang, Jai Dayal and Yuzhe Tang
A Toolset for Detecting Containerized Application's Dependencies in CaaS Clouds
IEEE Cloud 2018, Acceptance rate=20%

Cloud 18 Hailu Xu, Liting Hu, Pinchao Liu, Yao Xiao, Wentao Wang, Jai Dayal, Qingyang Wang and Yuzhe Tang
Oases: An Online Scalable Spam Detection System for Social Networks
IEEE Cloud 2018, Acceptance rate=20%

FC 18w *Lightweight Blockchain Logging for Data-Intensive Applications*
Yuzhe Tang, Zihao Xing, Cheng Xu, Ju Chen, Jianliang Xu
The Workshop of Trusted Smart Contract at the International Conference of Financial Cryptography 2018

TVT 18 *Non-interactive Identity-based Underwater data transmission with Anonymity and Zero-knowledge*
Changsheng Wan, Vir V Phoha, Yuzhe Tang, Aiqun Hu
IEEE Transactions on Vehicular Technology 2017

CIC 17 *PADS: Privacy-preserving Auction Design for Allocating Dynamically Priced Cloud Resources*
Jinlai Xu, Balaji Palanisamy, Yuzhe Tang, SD Madhu Kumar
IEEE CIC 2017

SOSP 17w *Strongly Secure and Efficient Data Shuffle on Hardware Enclaves*
Ju Chen, Yuzhe Tang, Hao Zhou
The Workshop of Systems Software for Trusted Execution (SysTEX) at ACM SOSP 2017

ICDCS 17p *Towards Secure Public Directory for Privacy-Preserving Data Sharing*
Amin Fallahi, Xi Liu, Yuzhe Tang, Shuang Wang, Rui Zhang
IEEE International Conference on Distributed Computing Systems, Poster

ICDCS 17w *Social-Aware Decentralization for Efficient and Secure Multi-Party Computation*
Yuzhe Tang, Sucheta Soundarajan
The Workshop of Big-Data Privacy and Security at IEEE International Conference on Distributed Computing Systems

BMC 16 *Secure Multi-pArty Computation Grid LOgistic REgression (SMAC-GLORE)*
Haoyi Shi, Chao Jiang, Wenrui Dai, Xiaoqian Jiang, Yuzhe Tang, Lucila Ohno-Machado and Shuang Wang
BMC Medical Informatics and Decision Making [open access]

SecDev 16 *Towards Building Practical And Secure Multi-Party Databases*
Yuzhe Tang, Wenqing Zhuang
IEEE Cyber-security Development Conference 2016 (Abstract)

Bioinfomatics 16 *HEALER: Homomorphic computation of ExAct Logistic rEgRession for secure rare disease variants analysis in GWAS*
Shuang Wang, Y. Zhang, W. Dai, K. Lauter, M. Kim, Yuzhe Tang, X. Jiang
Oxford Journals BioInformatics, doi: 10.1093/bioinformatics/btv563

BMC 15 *Privacy-preserving GWAS analysis on federated genomic datasets*
Scott D Constable, Yuzhe Tang, Shuang Wang, Xiaoqian Jiang, Steve Chapin
BMC Medical Informatics and Decision Making 2015, [Open access]

TKDE 15 *Privacy-Preserving Multi-Keyword Search in Information Networks*
Yuzhe Tang, Ling Liu
IEEE Transaction of Knowledge and Data Engineering 27(9): 2424-2437 (2015)

CCGrid 15 *Deferred Lightweight Indexing for Log-Structured Key-Value Stores*
Yuzhe Tang, Arun Iyengar, Wei Tan, Liana Fong, Ling Liu, Balaji Palanisamy
IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing 2015: 11-20
Best Paper Award

HPBDC 15 *KTV Tree: Interactive Top-K Aggregation on Large Dataset in Cloud*
Yuzhe Tang, Ling Liu, Junichi Tatemura, Hakan Hacigumus
IEEE International Conference of Distributed Computing Systems Workshops 2015: 136-141

HotCloud 15 *Privacy-Preserving Offloading of Mobile App to the Public Cloud*
Yue Duan, Mu Zhang, Heng Yin, Yuzhe Tang
USENIX Workshop on Hot Topics in Cloud Computing 2015
Acceptance rate=32.8%

TBC 15 *Secure Multi-party Computation on Grid Logistic Regression*
Haoyi Shi, Shuang Wang, Wenrui Dai, Yuzhe Tang, Xiaoqian Jiang, LucilaOhno-Machado
Annual Translational Bioinformatics Conference 2015

ACSAC 14 *Lightweight Authentication of Freshness in Outsourced Key-Value Stores*
Yuzhe Tang, Ling Liu, Xin Hu, Jiyong Jang
USENIX/ACM Annual Computer Security Applications Conference 2014: 176-185
Acceptance rate=19.9%

ICDCS 14 *e-PPI: Locator Service in Information Networks with Personalized Privacy Preservation*
Yuzhe Tang, Ling Liu, Arun Iyengar
IEEE International Conference of Distributed Computing Systems 2014: 186-197
Acceptance rate=13%

EDBT 14 *Diff-Index: Differentiated Index in Distributed Log-Structured Data Stores*
Wei Tan, Sandeep Tata, Yuzhe Tang, Liana Fong
International Conference on Extending Database Technology 2014: 700-711
Acceptance rate=20%

JDPD 14 *Anonymizing Continuous Queries with Delay-tolerant Mix-zones on Road Networks*
Balaji Palanisamy, Ling Liu, Kisung Lee, Shicong Meng, Yuzhe Tang
International Journal of Distributed and Parallel Databases 32(1): 91-118 (2014)

ICDE 14d *Outsourcing multi-version key-value stores with verifiable data freshness*
Yuzhe Tang, Ling Liu, Ting Wang, Xin Hu, Reiner Sailer, Peter Pietzuch
IEEE International Conference on Data Engineering 2014: 1214-1217 (Demo paper)

TPDS 13 *Auto-pipelining for Data Stream Processing*
Yuzhe Tang, Bugra Gedik
IEEE Trans. Parallel Distrib. Syst. 24(12): 2344-2354 (2013)

Cloud 13 *Residency Aware Inter-VM Communication in Virtualized Cloud: Performance Measurement and Analysis*
Qi Zhang, Ling Liu, Yi Ren, Kisung Lee, Yuzhe Tang, Xu Zhao, Yang Zhou
IEEE International Conference on Cloud Computing 2013: 204-211

Cloud 13 *Efficient and Customizable Data Partitioning Framework for Distributed Big RDF Data Processing in the Cloud*
Kisung Lee, Ling Liu, Yuzhe Tang, Qi Zhang, Yang Zhou
IEEE International Conference on Cloud Computing 2013: 327-334

MSN 12 *Location Privacy with Road Network Mix-Zones*
Balaji Palanisamy, Ling Liu, Kisung Lee, Shicong Meng, Yuzhe Tang
IEEE International Conference on Mobile Ad-hoc and Sensor Networks 2012: 124-131

Cloud 12 *Reliable State Monitoring in Cloud Data Centers*
Shicong Meng, Arun Iyengar, I. Rouvellou, Ling Liu, Kisung Lee, Balaji Palanisamy, Yuzhe Tang
IEEE International Conference on Cloud Computing 2012: 951-958
Best Paper Award

CIKM 11 *Privacy Preserving Indexing for eHealth Information Networks*
Yuzhe Tang, Ting Wang, Ling Liu, Shicong Meng, Balaji Palanisamy
Conference on Information and Knowledge Management 2011: 905-914
Acceptance rate=15% (Full paper)

TPDS 11 *A Lightweight Multi-dimensional Index for Complex Queries over DHTs*
Yuzhe Tang, Jianliang Xu, Shuigeng Zhou, Wang-Chien Lee, Dingxiong Deng, Yue Wang
IEEE Trans. Parallel Distrib. Syst. 22(12): 2046-2054 (2011)

TKDE 10 *LIGHT: A Query-Efficient yet Low-Maintenance Indexing Scheme over DHTs*
Yuzhe Tang, Shuigeng Zhou, Jianliang Xu
IEEE Transaction of Knowledge and Data Engineering 22(1): 59-75 (2010)

ICDCS 09 *m-LIGHT: Indexing Multi-Dimensional Data over DHTs*
Yuzhe Tang, Jianliang Xu, Shuigeng Zhou, Wang-Chien Lee
IEEE International Conference of Distributed Computing Systems 2009: 191-198
Acceptance rate=16%

ICDCS 08 *LHT: A Low-Maintenance Indexing Scheme over DHTs*
Yuzhe Tang, Shuigeng Zhou
IEEE International Conference of Distributed Computing Systems 2008: 141-151

Patents

2015 Adaptive Auto-pipelining in Stream Processing Applications
Bugra Gedik, Scott A. Schneider, Yuzhe Tang, Kun-lung Wu
US patent granted (US9098350B2)

Teaching

Fall 2022	CIS629/FIN629, *Blockchain Foundation and Applications*
Spring 2022	CSE384, *Introduction to Systems Programming*
Fall 2021	CIS629/FIN629, *Blockchain Foundation and Applications*
Fall 2020	CIS600/FIN600, *Cryptocurrencies and Blockchains*
Fall 2019	CIS600/FIN600, *Cryptocurrencies and Blockchains*
	CIS628/CIS428, *Introduction to Applied Cryptography*
Spring 2019	CSE384, *System Programming*
Fall 2018	CIS600/FIN600, *Blockchain and Cryptocurrency*
Spring 2018	CIS300, *Introduction to System Programming*
Fall 2017	CIS700, *Modern Information Security and Privacy*
Spring 2017	CIS/CSE600, *Applied Cryptography*
	CIS655/CSE661, *Advanced Computer Architecture*
	CIS423, *System Programming*
Spring 2016	CIS700/CSE791, *Big-Data and Cloud Security*, website: [link]
Fall 2015	CIS655/CSE661, *Advanced Computer Architecture*, website: [link]
Spring 2015	CIS700/CSE791, *Distributed Systems in Cloud*, website: [link]
Fall 2014	CIS655/CSE661, *Advanced Computer Architecture* (180 students)

Advising

Ph.D. students

- Yibo Wang: *FSE'21 (1st author)*, IMC'21, CCS'21, CCS'22 Poster (1st author), ConsensusDay'22 (1st author)
- Jiaqi Chen: NDSS'21, IMC'21, FSE'21, Middleware'20
- Xianghong Liu: NDSS'21, IMC'21
- Yuxuan Zhou
- Wanning Ding: Ethereum Protocol Fellowship'22 awardee

Undergraduate students (REU)

- Jack Willis, Eniola Mosaku, Nicholas Sweet

Alumni

- Dr. Kai Li (Ph.D., 2022), Tenure-track Assistant Professor in CS dept. at San Diego State Univ.
  - 1st-author papers (during Ph.D.): *CCS'21, IMC'21, NDSS'21, Middleware'20, etc.*
  - Internships: IBM Research '20, Amazon '21
  - Award: NortonLife Ph.D. fellowship finalist '22
- M.Sc.: Vinutha Karanth (Microsoft), Sencer Burak Somuncuoglu (Chainalysis), Kang Lou, Qi Zhang (CertiK), Katchaguy Areekijseree (PhD at Syracuse Univ.), Hari Krishna Gajarla (Bloomberg)
- B.Sc. (including REU): Zhehu Yuan (Ph.D. at NYU), Qiwu Zou (Cornell Univ.), Congcong Xie (NYU, then Oracle), Adam Piekarski, Jeong Bin Oh (A database startup), Sharell Scott (Google)
- Visiting scholar: Cheng Xu (Postdoc at Simon Fraser Univ.)

Professional Services

Program committee chair	BlockDM 21/20/19 (The International Workshop of Blockchain and Data Management, co-located with ICDE) GLSD 20/18 (Great Lake Security Day)
Program committee	IEEE Euro S&P 23 (7th IEEE European Symposium on Security and Privacy) SecureComm 22 (EAI International Conference on Security and Privacy in Communication Networks) EthiCS 22 (The 1st International Workshop on Ethics in Computer Security) IEEE DSC 22 (5th IEEE Conference on Dependable and Secure Computing)) ICICS 22/21 (The 23rd/24th International Conference on Information and Communications Security) IEEE MASS 22 (The 19th IEEE International Conference on Mobile Ad-Hoc and Smart Systems) WWW 21/20 (30th/29th The Web Conference) ICDCS 20/17/15 (41st/38th/36th IEEE International Conference on Distributed Computing Systems) IPDPS 18 (32nd IEEE International Parallel and Distributed Processing) EuroSys 18 (shadow) (The European Conference on Computer Systems) IEEE Cloud 15 (IEEE 8th International Conference on Cloud Computing) PAIS 16/15 (9th/8th International Workshop on Privacy and Anonymity in the Information Society)
Journal reviewer	TPDS 22 (IEEE Transactions on Transactions on Parallel and Distributed Systems) TIFS 22 (IEEE Transactions on Information Forensics and Security) ToIT 22 (ACM Transactions on Internet Technology) BCRA 22 (BlockChain: Research and Applications) TNSE 22/21 (IEEE Transactions on Network Science and Engineering) TCC 22 (IEEE Transactions on Cloud Computing) JPDC 22 (Journal of Parallel and Distributed Computing) COSE 22 (Computers and Security COSE) ACM TOCS 17 (ACM Transactions on Computer Systems) IEEE TKDE 17/16/15 (IEEE Transactions on Knowledge and Data Engineering) ACM ToIT 21 (ACM Transactions on Internet Technology) IEEE TSC 21/17/16/15 (IEEE Transactions on Services Computing) IEEE TCC 21/15 (IEEE Transactions on Cloud Computing) JBFT 20 (Journal of Banking and Financial Technology) IEEE Computer Magazine 17 TWeb 15 (ACM Transactions on the Web) IEEE TCSVT 14 (IEEE Transactions on Circuits and Systems for Video Technology)
Panel review	NSF panel 16, 20 (twice), 21
Campus services	EECS ABET Assessment and Accreditation committee EECS Faculty Search Committee, EECS ABET Assessment and Accreditation committee University academic integrity panel, MAE program review ECS research day poster judge, 22

Internship/Industrial Experience

2022 - Now	Avant fund adviser (Part-time), a blockchain investment firm (www.avant.fund)
05/2013-08/2013	Internship at IBM Research (T.J. Watson Lab) at Yorktown Heights, NY USA
05/2012-08/2012	Internship at IBM Research (T.J. Watson Lab) at Yorktown Heights, NY USA
05/2011-08/2011	Internship at IBM Research (T.J. Watson Lab) at Hawthorn, NY USA
05/2010-08/2010	Internship at NEC Labs America at Cupertino, CA USA
01/2009-06/2009	Internship at Microsoft Research Asia at Beijing, China
01/2006-04/2006	Internship at IBM Corp. at Shanghai, China

Honors and Awards

- Ethereum Foundation Academic Grant Awardee, 2022
- Air Force Research Lab (AFRL) Visiting Faculty Research Award, 2017
- Best paper award, 15th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, 2015
- Chinese Government Award for Outstanding Self-financed Students Abroad, 2012
- Best paper award, 5th International Conference on Cloud Computing, 2012
- Outstanding Master Thesis of Shanghai, Shanghai Government, 2010
- Tung's Oriental Scholarship, Tung's Oriental, 2008
- HP Distinguished Chinese Student Scholarship, Hewlett-Packard, 2008
- ICDCS Student Travel Grant, TCDP (IEEE Computer Society), 2008

- Graduate Student Fellowship of Fudan University, 2007-2008 (2 times)
- Outstanding Graduated Student of Fudan University, 2006
- Excellence Award, Tencent Innovation Contest, 2006
- The Peoples Scholarship of Fudan University, 2002-2006 (4 times)
- Chinese Physics Olympiads, First Prize in Hunan Province, 2001

Invited Talks

Research talks

- Understanding and Hardening Decentralized Systems Security in the Wild
  - Notre Dame ’22 [link], NUS ’22 [link], UK Security and Privacy seminar ’22 [link], Ohio State University ’21, University of Louisiana at Lafayette ’21 [pdf], Consensus day ’21
- Lightweight Data Authentication in Outsourced Key-Value Stores
  - Cornell University ’17 [link], Xi’an Jiao Tong University ’17, Fudan University ’16), Louisiana State University ’14
- Searching HIE with Differentiated Privacy Preservation
  - HealthTech ’14, co-located with USENIX Security, San Diego, CA
- Scalable and secure cloud service in big data systems
  - University of Delaware ’14, North Kentucky University ’14, NEC Lab ’14, IBM Research ’14, Missouri University of Science and Technology

Panel

- Blockchain Database, VLDB ’21 panel [link].

Lectures to the general public

- Public lecture: “Get Your Head In The Clouds! Cloud Computing: Risks and Rewards”
  - TACNY Junior Cafe Scientifique, Museum of Science & Technology, Syracuse (’17)
  - NSBE (National Society of Black Engineers) Jr. Science Camp. hosting Grades 7 - 12 in Syracuse City School District (’17)
- Public lecture: “Blockchain: Applications, Security Promises and Internals”
  - CSIAC (’17), Syracuse University Alumni Event (’21)