

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

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| 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) |

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| 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) |
| <i>Bug bounty awards</i> | Bug bounty from Ethereum Foundation \$12,000 (2021), \$2000 (2022) Bug bounty from OpenEthereum/Parity \$8,000 (2021) |
| <i>Internal Grants</i> | |
| 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

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| ConsensusDay 22 | Towards the Comprehensive Understanding of Ethereum Mempool DoS Security <u>Yibo Wang</u> , <u>Kai Li</u> , Yuzhe Tang Consensus Day 22, Co-located with CCS 2022 |
| CCS 22p | Enabling Cost-Effective Blockchain Applications via Workload-Adaptive Transaction Execution <u>Yibo Wang</u> , Yuzhe Tang ACM Conference on Computer and Communications Security (CCS) 2022, Poster |
| CCS 21 | <i>DETER: Denial of Ethereum's Txpool-based services</i> <u>Kai Li</u> , <u>Yibo Wang</u> , Yuzhe Tang ACM Conference on Computer and Communications Security (CCS) 2021 |
| IMC 21 | <i>TopoShot: Uncovering Ethereum's Network Topology Leveraging Replacement Transactions</i> <u>Kai Li</u> , Yuzhe Tang, <u>Jiaqi Chen</u> , <u>Yibo Wang</u> , <u>Xianghong Liu</u> ACM Internet Measurement Conference (IMC) 2021 Acceptance rate=28% |
| NDSS 21 | <i>As Strong As Its Weakest Link: How to Break Blockchain DApps at RPC Service</i> <u>Kai Li</u> , <u>Jiaqi Chen</u> , <u>Xianghong Liu</u> , Yuzhe Tang, XiaoFeng Wang, Xiapu Luo The Network and Distributed System Security Symposium (NDSS) 2021 Acceptance rate=15.2% |
| FSE 21 | <i>iBatch: Saving Ethereum Fees via Secure and Cost-Effective Batching of Smart-Contract Invocations</i> <u>Yibo Wang</u> , <u>Qi Zhang</u> , <u>Kai Li</u> , Yuzhe Tang, <u>Jiaqi Chen</u> , 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 | <i>Authenticated Key-Value Stores with Hardware Enclaves</i> <u>Kai Li</u> , Yuzhe Tang, Qi Zhang, Jianliang Xu, <u>Ju Chen</u> ACM/IFIP Middleware 2021 (Industrial track) |
| ToNSE 21 | <i>VFChain: Enabling Verifiable and Auditable Federated Learning via Blockchain Systems</i> 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 | <i>Cost-Effective Data Feeds to Blockchains via Workload-Adaptive Data Replication</i> <u>Kai Li</u> , Yuzhe Tang, <u>Jiaqi Chen</u> , <u>Zhehu Yuan</u> , <u>Cheng Xu</u> , Jianliang Xu ACM/IFIP Middleware conference 2020 Acceptance rate=25.2% |

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| SERIAL 20 | <i>Scalable Log Auditing on Private Blockchains via Lightweight Log-Fork Prevention</i> 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 | <i>GEM²-Tree: A Gas-Efficient Structure for Authenticated Range Queries in Blockchain</i> Ce Zhang, Cheng Xu, Jianliang Xu, Yuzhe Tang, Byron Choi IEEE 36th International Conference on Data Engineering (ICDE) 2020 Acceptance rate=26.8% |
| SecureComm19 | <i>Secure Consistency Verification for Untrusted Cloud Storage by Public Blockchains</i> Kai Li , Yuzhe Tang, Beom Heyn Kim, Jianliang Xu SecureComm 2019 |
| SecureComm19 | <i>Authenticated LSM Trees with Minimal Trust</i> Yuzhe Tang, Ju Chen , Kai Li SecureComm 2019 (Short paper) |
| CISSE 19 | <i>Hands-on Labs for Secure Programming on Modern Trusted Platforms</i> Yuzhe Tang, Wenliang Du The Colloquium For Information Systems Security Education, 2019 |
| ASONAM 19p | <i>Computing Node Clustering Coefficients Securely</i> K. Areekijserree, Yuzhe Tang, Sucheta Soundarajan IEEE ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), 2019, Poster |
| SecureComm18 | <i>Secure and Efficient Multi-Party Directory Publication for Privacy-Preserving Data Sharing</i> K. Areekijserree, Ju Chen , Yuzhe Tang, Shuang Wang, Arun Iyengar and B. Palanisamy SecureComm 2018, Acceptance rate=30.6% |
| Cloud 18 | <i>ChainFS: Blockchain-Secured Cloud Storage</i> 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 <i>A Toolset for Detecting Containerized Application's Dependencies in CaaS Clouds</i> 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 <i>Oases: An Online Scalable Spam Detection System for Social Networks</i> IEEE Cloud 2018, Acceptance rate=20% |
| FC 18w | <i>Lightweight Blockchain Logging for Data-Intensive Applications</i> 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 | <i>Non-interactive Identity-based Underwater data transmission with Anonymity and Zero-knowledge</i> Changsheng Wan, Vir V Phoha, Yuzhe Tang, Aiqun Hu IEEE Transactions on Vehicular Technology 2017 |
| CIC 17 | <i>PADS: Privacy-preserving Auction Design for Allocating Dynamically Priced Cloud Resources</i> Jinlai Xu, Balaji Palanisamy, Yuzhe Tang, SD Madhu Kumar IEEE CIC 2017 |
| SOSP 17w | <i>Strongly Secure and Efficient Data Shuffle on Hardware Enclaves</i> Ju Chen , Yuzhe Tang, Hao Zhou The Workshop of Systems Software for Trusted Execution (SysTEX) at ACM SOSP 2017 |
| ICDCS 17p | <i>Towards Secure Public Directory for Privacy-Preserving Data Sharing</i> Amin Fallahi , Xi Liu, Yuzhe Tang, Shuang Wang, Rui Zhang IEEE International Conference on Distributed Computing Systems, Poster |
| ICDCS 17w | <i>Social-Aware Decentralization for Efficient and Secure Multi-Party Computation</i> Yuzhe Tang, Sucheta Soundarajan The Workshop of Big-Data Privacy and Security at IEEE International Conference on Distributed Computing Systems |
| BMC 16 | <i>Secure Multi-party Computation Grid Logistic REgression (SMAC-GLORE)</i> 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 | <i>Towards Building Practical And Secure Multi-Party Databases</i> Yuzhe Tang, Wenqing Zhuang IEEE Cyber-security Development Conference 2016 (Abstract) |
| Bioinformatics 16 | <i>HEALER: Homomorphic computation of ExAct Logistic rEgression for secure rare disease variants analysis in GWAS</i> Shuang Wang, Y. Zhang, W. Dai, K. Lauter, M. Kim, Yuzhe Tang, X. Jiang Oxford Journals Bioinformatics, doi: 10.1093/bioinformatics/btv563 |
| BMC 15 | <i>Privacy-preserving GWAS analysis on federated genomic datasets</i> |

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, Lucila Ohno-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

ICDCS 08 IEEE International Conference of Distributed Computing Systems 2009: 191-198
 Acceptance rate=16%
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)

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| | 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

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| 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)