

Dong Chen

PERSONAL INFORMATION	School of Computing and Information Sciences Florida International University 11200 SW 8th Street, CASE 385 Miami, FL 33199. Cyber-Physical Systems Laboratory:	Cell: +1 (305)-348-3549 Office: +1 (305)-348-7983 Email: dongchen523@gmail.com URL: http://users.cis.fiu.edu/~dochen Web: https://cps.cis.fiu.edu/
RESEARCH INTERESTS	▷ My research aims to <i>build data-driven computer systems</i> to make <i>Cyber-Physical Systems (CPS)</i> more efficient and more secure. I have been looking into multiple CPS research problems, such as system sustainability, data privacy, and system security in CPS at different scales, such as the Internet of Things (IoT) and Edge Computing devices, smart homes, smart energy systems, and smart cities.	
	▷ My work has been spanning multiple technical fields, including <i>Privacy Preserving, Distributed Machine Learning, Deep Learning, Image Processing,</i> and <i>Multi-Agent Reinforcement Learning</i> . I open-source all the systems (including their evaluation datasets) I build.	
EDUCATION	University of Massachusetts Amherst (UMass Amherst) Ph.D. in Electrical and Computer Engineering, ▷ Dissertation: <i>Hybrid Black-box Solar Analytics and their Privacy Implications</i> ▷ Advisors: David Irwin, and Prashant Shenoy Northeastern University, Shenyang, China M.S. and Ph.D. in Computer Science, ▷ Dissertation: <i>Secure and Privacy-Preserving Cyber-Physical Systems</i> ▷ Advisor: Guiran Chang, <i>Best University Dissertation Award</i> .	
	National University of Defense Technology, China B.S. , Computer Science and Technology, 2006	
ACADEMIC APPOINTMENTS	Assistant Professor (second year tenure-tracking) School of Computing and Information Sciences Florida International University, The State University of Florida at Miami Research Assistant Department of Electrical and Computer Engineering University of Massachusetts Amherst Visiting Researcher College of Information and Computer Sciences University of Massachusetts Amherst Research Assistant School of Information and Computer Engineering Northeastern University, China	
	August 2018 to — Now Miami, Florida, U.S. September 2014 to June 2018 Amherst, MA, U.S. September 2012 to June 2014 Amherst, MA, U.S. September 2008 to August 2012 Shenyang, China	
INDUSTRY APPOINTMENT	Solaris/Unix Software Engineer Neusoft Corporation	
	July 2006 to May 2008 Shenyang, China	
FELLOWSHIPS, HONORS AND AWARDS	Fellowships, Honors and Awards in U.S.: ▷ ACM BuildSys'20 Best Paper Award ▷ ASEE (American Society for Engineering Education) DELTA Junior Faculty Institute ▷ NSF CISE Career Workshop Travel Grant ▷ ACM Travel Grant to e-Energy'17 ▷ ACM SIGMETRICS/PERFORMANCE Travel Grant to Greenmetrics'17 ▷ ACM Travel Grant to SenSys/BuildSys'16 ▷ New Entering Doctoral Student Fellowship, from UMass Amherst Fellowships, Honors and Awards Outside of the U.S.: ▷ Best Dissertation Award ▷ National Graduate Scholarship, from Ministry of Education, China ▷ Huawei Scholarship ▷ Academic Researcher Award for Doctoral Candidates, from Ministry of Education, China	
	2020 2021 2019 2017 2017 2016 2014 2014 2013 2011 2011	

- ▷ Best Academic Paper Award, from China Institute of Communications 2011
- ▷ Innovative Design Award in National Competition on Internet of Things System Designing 2011
- ▷ Outstanding Graduate Student Award from Northeastern University 2010

ARCHIVAL
CONFERENCE
PROCEEDINGS

Works in this category are refereed papers in conferences. Acceptance rates listed where known. Graduate and undergraduate students that I have advised are underlined.

1. **[IPSN'21]** Keyang Yu, Qi Li, **Dong Chen**, Mohammad Rahman, Shiqiang Wang. "PrivacyGuard: Enhancing Smart Home User Privacy". In Proceedings of the *20th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN'21)*, May 18-21, 2021, NASHVILLE, TENNESSEE, Acceptance Rate = 24.76%.
2. **[BuildSys'20]** Yuzhou Feng, Qi Li, **Dong Chen** and Raju Rangaswami. "SolarTrader: Enabling Distributed Solar Energy Trading in Residential Virtual Power Plants". In Proceedings of the *7th ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys'20)*, November 16-19, 2020, Yokohama, Japan, Acceptance Rate = 24%. **Best Paper Award**.
3. **[IGSC'20]** Qi Li, Keyang Yu, **Dong Chen**. "SolarDiagnostics: Automatic Rooftop Solar Photovoltaic Array Damage Detection". In Proceedings of the *Eleventh IEEE International Green and Sustainable Computing Conference (IGSC'20)*, Oct 19-22, Acceptance Rate = 23%.
4. **[IPSN'20]** Qi Li, Yuzhou Feng, Yuyang Leng, **Dong Chen**. "SolarFinder: Automatic Detection of Solar Photovoltaic Arrays". In Proceedings of the *19th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN'20)*, April 21-24, 2020, Sydney, Australia, Acceptance Rate = 21.77%.
5. **[MASS'19]** Noman Bashir, **Dong Chen**, David Irwin, and Prashant Shenoy. "Solar-TK: A Data-driven Toolkit for Solar PV Performance Modeling and Forecasting". In Proceedings of the *16th International Conference on Mobile Ad-hoc and Smart Systems (MASS'19)*, November 4-7, 2019, Monterey, CA, USA.
6. **[MILCOM'19]** Liangdong Deng, Yuzhou Feng, **Dong Chen**, Naphtali Rishe. "Identifying the IoT Devices Using their Anonymous Network Traffic Data", In Proceedings of the *38th IEEE Military Communications Conference (MILCOM'19)*, November 12-14, 2019, Norfolk, VA.
7. **[BuildSys'18]** **Dong Chen**, David Irwin. "Staring at the Sun: A Physical Black-box Solar Performance Model.", In Proceedings of the *2018 ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys'18)*, 2018, Acceptance rate = 24.19%.
8. **[ICDCS'18]** **Dong Chen**, Phuthipong Bovornkeeratiroj, David Irwin and Prashant Shenoy. "Private Memoirs of IoT Devices: Safeguarding User Privacy in the IoT Era", In Proceedings of the *38th IEEE International Conference on Distributed Computing Systems (ICDCS'18)*, July 2-5, 2018, Vienna, Austria, 2018.
9. **[BigData'17]** **Dong Chen**, David Irwin. "Weatherman: Weather-based Localization of Anonymous Energy Meter Data", In Proceedings of *2017 IEEE International Conference on Big Data (BigData'17)*, Boston, MA, USA, Dec 11-14, 2017. Acceptance ratio = $87/437 = 20\%$.
10. **[e-Energy'17]** **Dong Chen**, David Irwin. "SunDance: Black-box Behind-the-Meter Solar Disaggregation". In Proceedings of the *eighth ACM International Conference on Future Energy Systems (e-Energy'17)*, Hongkong, 2017. Acceptance ratio = 26.7%.
11. **[Greenmetrics'17]** **Dong Chen**, David Irwin. "Black-box Solar Performance Modeling: Comparing Physical, Machine Learning, and Hybrid Approaches". In Proceedings of the *2017 ACM Greenmetrics (Greenmetrics'17)*, Urbana-Champaign, IL, USA, 2017.
12. **[BuildSys'16]** **Dong Chen**, Srinivasan Iyengar, David Irwin, Prashant Shenoy. "SunSpot: Exposing the Location of Anonymous Solar-powered Homes". In Proceedings of the *2016 ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys'16)*, Stanford, CA, USA, 2016. Acceptance ratio = 24%.
13. **[SmartGridComm'16]** **Dong Chen**, David Irwin, Prashant Shenoy. "SmartSim: A Device-Accurate Smart Home Simulator for Energy Analytics." In Proceedings of the *2016 IEEE International Conference on Smart Grid Communications (SmartGridComm'16)*, Sydney, Australia, 2016.

14. [PerCom'14] **Dong Chen**, David Irwin, Prashant Shenoy, Jeannie Albrecht. "Combined Heat and Privacy: Preventing Occupancy Detection from Smart Meters". In *Proceedings of the 12th IEEE International Conference on Pervasive Computing and Communications (PerCom'14)*, Budapest, Hungary, 2014. Acceptance ratio = 14%.
15. [BuildSys'13] **Dong Chen**, Sean Barker, Adarsh Subbaswamy, David Irwin, and Prashant Shenoy. "Non-Intrusive Occupancy Monitoring using Smart Meters". In *Proceedings of the Fifth ACM Workshop On Embedded Sensing Systems For Energy-Efficiency In Buildings (BuildSys'13)*, Roma, Italy, Nov 2013. Acceptance ratio = 39%.
16. [ICGEC'13] Changsheng Miao, Fengling Cao, **Dong Chen**, Guiran Chang. "A Novel Secure Architecture for the Internet of Things". In *Proceedings of the Sixth IEEE International Conference on Genetic and Evolutionary Computing (ICGEC'13)*, pp. 288-291, 2012.
17. [CSSS'11] **Dong Chen**, Guiran Chang, Jie Jia. "Study on the Interconnection Architecture and Access Technology for Internet of Things". In *Proceedings of International Conference on Computer Science and Service System (CSSS'11)*, Sept 2011.
18. [ICGEC'10] **Dong Chen**, Guiran Chang, Lizhong Jin, Xiaodong Ren. "A Novel Secure Architecture for the Internet of Things". In *Proceedings of the Fifth International Conference on Genetic and Evolutionary Computing (ICGEC'10)*, 2010.
19. [ICGEC'10] Lizhong Jin, Jie Jia, **Dong Chen**, Fengyun Li, Zhicao Dong, Xue Fen. "Research on Architecture, Cross-Layer MAC Protocol for Wireless Sensor Networks.". In *Proceedings of the Fifth International Conference on Genetic and Evolutionary Computing (ICGEC'10)*, 2010.
20. [ISDEA'10] **Dong Chen**, Guiran Chang, Xingwei Wang. "Design and Implementation of a Portable ACE-Based IPC Platform". In *Proceedings of International Conference on Intelligent System Design and Engineering Application (ISDEA'10)*, Oct 2010.
21. [SKG'09] **Dong Chen**, Guiran Chang, Xingwei Wang. "An improvement to the Chord-based P2P routing algorithm". In *Proceedings of the Fifth International Conference on Semantics, Knowledge and Grid (SKG'09)*, 2009.

JOURNAL ARTICLES

Works in this category are refereed journal articles.

1. Yuzhou Feng, Qi Li, **Dong Chen** and Raju Rangaswami. "Enabling Distributed Solar Energy Trading in Residential Virtual Power Plants". *ACM Transactions on Sensor Networks*, 2020, To appear.
2. Qi Li, Keyang Yu, **Dong Chen**. "SolarDiagnostics: Automatic Rooftop Solar Photovoltaic Array Damage Detection". *Sustainable Computing: Informatics and Systems (SUSCOM)*, 2020.
3. Bing Jia, Lifei Hao, Chuxuan Zhang, and **Dong Chen** (Corresponding Author). "A Dynamic Estimation of Service Level Based on Fuzzy Logic for Robustness in the Internet of Things". *Sensors*, 18(7): 2190, July 2018.
4. **Dong Chen**, Sandeep Kalra, David Irwin, Prashant Shenoy, Jeannie Albrecht. "Preventing Occupancy Detection from Smart Meters". *IEEE Transactions on Smart Grid*, 6(5): 2426-2434, Feb 2015, Impact Factor: 7.364.
5. Dawei Sun, Guiran Chang, **Dong Chen**, Xingwei Wang. "Profiling, Quantifying, Modeling and Evaluating Green Service Level Objectives in Cloud Computing Environments". *Chinese Journal of Computers*, (36)7: 1509-1525, November 2013.
6. **Dong Chen**, Guiran Chang, Dawei Sun, Jie Jia, Xingwei Wang. "Modeling Access Control for Cyber-Physical Systems Using Reputation". *Journal of Computers Science and Electrical Engineering*, 38(5):1088-1101, September 2012.
7. **Dong Chen**, Guiran Chang, Jie Jia. "AC4E: An Access Control Model for Emergencies of Mission-Critical Cyber-Physical Systems". *KSII Transactions on Internet and Information Systems*, 6(9):2052-2072, September 2012.

8. **Dong Chen**, Guiran Chang. “A Survey on Security Issues of M2M Communications in Cyber-Physical Systems”. *KSII Transactions on Internet and Information Systems*, 6(1):24-45, 2012.
9. **Dong Chen**, Guiran Chang, Dawei Sun, Jie Jia and Xingwei Wang. “Lightweight Key Management Scheme to Enhance the Security of Internet of Things”. *International Journal of Wireless and Mobile Computing*, 5(2):191-198, 2012.
10. Dawei Sun, Guiran Chang, **Dong Chen** and Xingwei Wang. “Modelling, evaluating, designing and maximizing resource allocation revenue by an auction mechanism in cloud computing environments”. *International Journal of Computer Applications in Technology*, (2012): 385-392.
11. **Dong Chen**, Guiran Chang, Dawei Sun, Jie Jia and Xingwei Wang. “TRM-IoT: A Trust Management Model Based on Fuzzy Reputation for Internet of Things”. *Journal of Computer Science and Information Systems*, 8(4):1207-1228, 2011.
12. **Dong Chen**, Guiran Chang, Xiuying Zheng, Dawei Sun and Xingwei Wang. “A Novel P2P Based Grid Resource Discovery Model”. *Journal of Computers*, 6(10):1390-1397, 2011.

WORKSHOPS

1. Kengyang Yu, **Dong Chen**. “SmartAttack: Open-source Attack Models for Enabling Security Research in Smart Homes”, In *Proceedings of the 2nd IEEE International Workshop on Big Data Analytics of Cyber-Physical Systems (BigDataCPS’20)*, Oct 19, 2020, co-located with IGSC’20.

POSTERS AND DEMOS

1. Qi Li, Keyang Yu, **Dong Chen**. “Automatic Damage Detection on Rooftop Solar Photovoltaic Arrays”. In *Proceedings of the 7th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (BuildSys’20)*, November 18-20, 2020, Virtual Event, Japan.
2. Noman Bashir, **Dong Chen**, David Irwin, and Prashant Shenoy. “Solar-TK: A Data-driven Toolkit for Solar PV Performance Modeling and Forecasting”. In *Proceedings of the 6th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (BuildSys’19)*, November 13-14, 2019, New York, NY, USA.
3. Qi Li, **Dong Chen**. “Exposing the Location of Anonymous Solar-powered Homes”, In *Proceedings of the 12th Conference on Security and Privacy in Wireless and Mobile Networks (WiSec’19)*, Miami, Florida, 2019.
4. Yuzhou Feng, Liangdong Deng, **Dong Chen**. “IoT devices discovery and identification using network traffic data”, In *Proceedings of the 12th Conference on Security and Privacy in Wireless and Mobile Networks (WiSec’19)*, Miami, Florida, 2019.

SUBMITTED WORKS

1. Kengyang Yu, Qi Li, Yuzhou Feng, **Dong Chen**, and Shiqiang Wang. “PrivacyGuard: Enhancing User Privacy against IoT Traffic Analytic”, In *submission (under reviewing)*, 2020.
2. Yuzhou Feng, Qi Li, Liangdong Deng, **Dong Chen**, and Naphtali Rishe. “Unsupervised Identification of IoT Devices Using their Anonymous Network Traffic Data”, In *submission (under reviewing)*, 2020.

STUDENT MENTORING

Ph.D. students at Florida International University

- ▷ Qi Li (Since Spring 2019, from: Northeastern University, 2020 SCIS Best Research Student Award)
- ▷ Keyang Yu (Since Fall 2019, from: Florida International University)

M.S. students at Florida International University

- ▷ Keyang Yu (from: Southeast University, first employment: Ph.D. at FIU)
- ▷ Wupeng Yin
- ▷ Xu Li (from: Beihang University, first employment: Facebook)
- ▷ Yuzhou Feng (Since Fall 2019, from: Beihang University)

Undergraduate students at Florida International University

- ▷ Hongru Chu (2020, Now master at University of Florida)
- ▷ Denis Ortega (2020)
- ▷ Samuel Jose (2020)
- ▷ Yuyang Leng (2020, Now Ph.D. at George Mason University)
- ▷ Samuel Jose Yorizzo (Spring 2020)

- ▷ Denis Ortega (Spring 2020)
- ▷ Jacob Garcia (Fall 2019, FIU Honors College)
- ▷ Anwar Numa (2018)
- ▷ Leonardo Gutierrez (2018)
- ▷ Ramses Machado (2018, Now master at Georgia Institute of Technology)

Research Experience for Undergraduates at UMass Amherst 2013, 2017

- ▷ Adarsh Subbaswamy, Vanderbilt University, research topic: smart meter data analytics, 2013.
- ▷ Joseph Breda, UMass Amherst, research topic: big energy data analytics, 2017.

PRESENTATIONS Talks and Keynotes

- ▷ “Automatic Detection of Solar Photovoltaic Arrays”, Duke University Energy Initiative, 2020.
- ▷ ”Preventing EV Attacks and Faults using Data-driven Approach”, Keynote Speaker at Cybersecurity in Florida Public Transportation Workshop, USF, 2019.
- ▷ “Exposing the Location of Anonymous Solar-powered Homes”, Lawrence Berkeley National Laboratory, Berkeley, California, 2018.

Presentations

- ▷ “Staring at the Sun: A Physical Black-box Solar Performance Model.”, ACM BuildSys’18.
- ▷ “SunDance: Black-box Behind-the-Meter Solar Disaggregation”, ACM e-Energy 2017.
- ▷ “SunSpot: Exposing the Location of Anonymous Solar-powered Homes”. ACM BuildSys’16, Stanford, CA, 2016.
- ▷ “Black-box Solar Performance Modeling”, ACM Greenmetrics 2017.
- ▷ “Design and Implementation of a Portable ACE-Based IPC Platform”, IEEE ISDEA 2010.
- ▷ “An improvement to the Chord-based P2P routing algorithm”, IEEE SKG 2009.
- ▷ “Lightweight Key Management Scheme to Enhance the Security of Internet of Things”, ICCDA 2012

TEACHING Courses Taught at Florida International University (FIU)

- ▷ **COP-5614: Operating Systems Principles.**
- ▷ **COP-4610: Operating Systems Principles.**
- ▷ **CAP-5768C: Practical Data Science**

Courses Taught at Northeastern University, China

- ▷ **E-Commerce Security and Privacy.**
- ▷ **Introduction to Linux.**

SERVICE 1. NSF Panelist, 2019, 2020

2. Program Chair.

- ▷ IEEE International Workshop on Big Data Analytics of Cyber-Physical Systems, Oct 19, 2020.
- ▷ IEEE International Workshop on Big Data Analytics of Cyber-Physical Systems, Washington D.C., Oct 21, 2019.

3. Program Committee Member 2010 to Now

- ▷ (MASS’21) The 18th IEEE International Conference on Mobile Ad-Hoc and Smart Systems, Denver, Colorado, USA, Oct 4 -7 , 2021.
- ▷ (ICDCS’20) The 41st IEEE International Conference on Distributed Computing Systems, July 7 - July 10, 2021, Washington DC, USA
- ▷ (IoTDI’20) The 6th ACM/IEEE International Conference on Internet of Things Design and Implementation, Nashville, Tennessee.
- ▷ (BuildSys’20) The 7th ACM International Conference on Systems for Energy-Efficient Built Environments, Yokohama, Japan.
- ▷ (IGSC’20) The Eleventh International Green and Sustainable Computing Conference.
- ▷ (MASS’20) The 17th IEEE International Conference on Mobile Ad-Hoc and Smart Systems, Delhi NCR, India, December 10-13, 2020.
- ▷ (IEEE BigData 2020) 2020 IEEE International Conference on Big Data, Atlanta, GA, USA.

- ▷ The 8th International Conference on Smart Computing and Communications (ICSCC 2020), Kochi, Kerala.
- ▷ The 2nd International Workshop on Challenges in Artificial Intelligence and Machine Learning for Internet of Things (AIChallengeIoT 2020).
- ▷ The 16th ACS/IEEE International Conference on Computer Systems and Application (AICCSA'19), Abu Dhabi, UAE.
- ▷ (IEEE Big Data 2019) 2019 IEEE International Conference on Big Data, Los Angeles, CA, USA.
- ▷ 2019 the Twelfth International Conference on Contemporary Computing (IC3), Noida, India.
- ▷ (IEEE Big Data 2018) 2018 IEEE International Conference on Big Data, Seattle, WA.
- ▷ (AIChallengeIoT 2019) The First International Workshop on Challenges in Artificial Intelligence and Machine Learning for Internet of Things, November 10-13, New York, NY, USA, 2019.
- ▷ The 2015 International Symposium on Next Generation Computing and Internet, Dubai.
- ▷ The 2015 IC Engineering and Computational Innovative Sciences, Morocco.

4. Journal Reviewer

2011 to Now

- ▷ ACM Computing Surveys
- ▷ ACM Transactions on Internet Technology
- ▷ Ad Hoc Network
- ▷ IEEE Transactions on Smart Grid
- ▷ IEEE Transactions on Systems, Man and Cybernetics: Systems
- ▷ IEEE Transactions on Information Forensics and Security
- ▷ IEEE Transactions on Industrial Electronics
- ▷ Transactions on Information Forensics and Security
- ▷ Journal of Intelligent Systems
- ▷ Journal of Computers and Electrical Engineering
- ▷ KSII Transactions on Internet and Information Systems
- ▷ Journal of Computer Science and Information Systems
- ▷ International Journal of Ad Hoc and Ubiquitous Computing
- ▷ Jorabian Journal for Science and Engineering
- ▷ IET Control Theory and Applications
- ▷ Journal of Educational Research and Reviews
- ▷ Journal of Experimental & Theoretical Artificial Intelligence
- ▷ Applied Energy
- ▷ IEEE Access
- ▷ Sustainable Computing: Informatics and Systems (SusCom)
- ▷ IEEE Internet of Things Journal

5. Conference and Workshop (External) Reviewer

- ▷ The 19th Privacy Enhancing Technologies Symposium (PETS 2019), Stockholm, Sweden.
- ▷ The 15th IEEE International Symposium on Signal Processing and Information Technology.
- ▷ The Workshop on Hot Topics in Cyber-Physical Systems, China (HotCPS 2011)
- ▷ The Second International Symposium on Intelligent Systems Technologies and Applications.
- ▷ The 2015 International Symposium on Intelligent Systems Technologies and Applications.
- ▷ The 2012 IEEE Symposium on Industrial Electronics and Applications.

6. Guest Editor

- ▷ Guest Editor on Security, Privacy, and Multi-modal Data Analysis for Social Media for Security and Communication Networks, March 2021.

7. University, College Service, and SCIS Service:

- ▷ 2019 University Graduate School's Graduate Student Spring Appreciation Week Judge
- ▷ 2019 Judge for Senior Design/Project Showcase of the College of Engineering at FIU
- ▷ 2018-2019, 2019-2020, 2020-2021, FIU SCIS Seminar Series Committee
- ▷ Ph.D. Dissertation Committee Member for:
 - ▷ FIU CS: Boyuan Guan, Yekun Xu, Liangdong Deng, AKM Iqtidar Newaz, Tianren Yang, Mustafa Ocal, Mireya Jurado.
 - ▷ FIU ECE: Mohamadsaleh Jafari.
- ▷ Ph.D. Candidacy Qualifying Exam Committee Member for: Boyuan Guan (FIU CS), Maria Presa Reyes (FIU CS).
- ▷ Developed a new graduate course — CAP 5768C Practical Data Science

FUNDING EXPERIENCE	<p>Current Funding in the U.S.:</p> <ul style="list-style-type: none"> ▷ FIU PI. “Online Learning and Visualization for Intrusion Detection and Prevention in Privacy-Enhanced IoT Networks”, Cyber Florida Collaborative Seed Program, 7/01/2020-06/30/2021, \$75,000, 50%. ▷ Sole PI. “Image Processing-based Indoor Navigation for Visually Impaired People”, Google Cloud Platform Education Grant, 2019, \$11,926, 100%. ▷ Co-PI. “<i>A decision-support tool for evaluating the impacts of short- and long-term management decisions on the Gulf of Mexico red snapper resource.</i>”, NOAA, \$500,000 (my share: \$25,683). ▷ Senior Personal. “<i>RET in Engineering and Computer Science SITE: Research Experience for Teachers on Cyber-Enabled Technologies</i>”, 2020, NSF RET Site Program, \$600,000 (my share: \$1,600 and 1 RET teacher scholarship for 3 years). <p>Prior Funding Experience Outside of the U.S.:</p> <ul style="list-style-type: none"> ▷ Principal Investigator. “The Architecture, Security and Privacy Preserving Techniques of Cyber-Physical Systems”. Funded: July 10, 2011–June 30, 2013. CNY\$50,000, Fundamental research funding programs from Ministry of Education and Finance, China. ▷ Co-Principal Investigator. “A Novel ACE-Based Medium Plate Mill Level 2 Communication System”. Funded: October 1, 2009–November 1, 2010. CNY\$100,000, Open Subject Funding programs from RAL State Key Laboratory China.
SOFTWARE AND DATA RELEASE	<p>My research datasets are publicly available, and have been requested and cited by many schools and researchers ~1000 times.</p> <ul style="list-style-type: none"> ▷ SmartSim. SmartSim is a publicly-available device-accurate smart home energy trace generator. ▷ NIOM dataset. This dataset contains 3 weeks minute level aggregated energy data, and the ground truth occupancy status data for the same periods. This dataset is used to evaluate NIOM algorithm. ▷ Solar Panel dataset. This dataset contains 1 minute level solar generation data for 50 rooftop solar panels. This dataset is used in SunSpot paper to evaluate the accuracy of the SunSpot system. ▷ SunDance dataset. This dataset includes hourly energy data (net meter, solar generation) and weather data (weather condition data from public weather stations and apis) for 100 solar sites in North America from 2015/1/1 to 2016/1/1 used in SunDance paper. ▷ SolarFinder. https://github.com/cyber-physical-systems/SolarFinder. 03/2020. ▷ SolarDiagnostics. https://github.com/cyber-physical-systems/SolarDiagnostics. 06/2020. ▷ SolarTrader. https://github.com/cyber-physical-systems/SolarTrader. 09/2020. ▷ SmartAttack. https://github.com/cyber-physical-systems/SmartAttack. 11/2020. ▷ PrivacyGuard. https://github.com/cyber-physical-systems/PrivacyGuard. 03/2021. ▷ More data and codes at: https://github.com/cyber-physical-systems/
PROFESSIONAL MEMBERSHIPS	Member of ACM, ACM SigEnergy, and IEEE. (2015 to now)