



+1 646 327 4876
Maynard St. 9, Hanover 03755
New Hampshire, USA
yanhaixiong7@gmail.com
<https://yanhai-xiong.github.io/>



YANHAI XIONG

RESEARCH INTERESTS

Artificial Intelligence, Cybersecurity, Algorithmic Game Theory, Applied Machine Learning, Optimization, Explainable AI, Reinforcement Learning

EDUCATION

01/2014 - 06/2018	Nanyang Technological University Ph.D. in Computer Science and Engineering · Singapore Advisor: Bo An & Yeng Chai Soh Thesis: Electric Vehicle Charging Station Placement and Management
08/2009 - 06/2013	University of Science and Technology of China B.Sc. in Automation · Hefei, China

RESEARCH EXPERIENCE

07/2018 - Now	Dartmouth College Postdoctoral Research Associate · Hanover NH, USA Advisor: VS Subrahmanian
07/2013 - 11/2013	Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences Research Intern · ShenZhen, China

TEACHING EXPERIENCE

2016	Teaching Assistant Human Computer Interaction · Instructor: Bo An
2014	Teaching Assistant Intelligent Agents · Instructor: Bo An

INVITED TALKS

2019	Electric Vehicle Charging Station Placement and Management with Game Theoretical Approaches Southern University of Science and Technology · Shenzhen, China
2016	Electric Vehicle Charging Station Placement Singapore Management University · Singapore

AWARD

06/2017	First Place of Microsoft Malmo Collaborative AI Challenge GOAL: <ul style="list-style-type: none">- To solve a Minecraft-based game with collaborative agents RESULT: <ul style="list-style-type: none">- 81 teams from 26 countries entered the challenge- our agent HogRider won the first prize MEDIA COVERAGE: <ul style="list-style-type: none">- Presenting the winners of the Project Malmo Collaborative AI Challenge (Official announcement)- Microsoft Malmo Collaborative AI Challenge: Chinese teams on winning list, big prizes! (In Chinese)- SCSE Team HogRider wins first place for the Microsoft Azure for Research grant prize! (NTU news)
2015	Recommended for Teaching, University Teaching Certificate, NTU

PROFESSIONAL SERVICES

Student volunteer	<ul style="list-style-type: none">- International Joint Conferences on Artificial Intelligence (IJCAI'15)- IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT'15)
PC member	<ul style="list-style-type: none">- International Joint Conference on Artificial Intelligence (IJCAI'19, IJCAI'20)- AAAI Conference on Artificial Intelligence (AAAI'19, AAAI'21)- International Conference on Autonomous Agents and Multiagent Systems (AAMAS'19)
Journal reviewer	<ul style="list-style-type: none">- Transactions on Intelligent Transportation Systems (IEEE T-ITS, since 2020)- IEEE Transactions on Vehicular Technology (IEEE TVT, since 2019)- IEEE Intelligent Systems (IEEE-IS, since 2018) I'm also helping Prof. VS Subrahmanian (Editor in Chief) with the submission system management- Journal of Ambient Intelligence and Humanized Computing (J-AIHC, since 2018)

PUBLICATIONS

2020e	Yanhai Xiong , Giridhar Kaushik Ramachandran, Rajesh Ganesan, Sushil Jajodia, VS Subrahmanian. "Generating Realistic Fake Equations in Order to Reduce Intellectual Property Theft." IEEE Transactions on Dependable and Secure Computing (IEEE TDSC)
2020d	Yanhai Xiong , Bo An and Sarit Kraus. "Electric Vehicle Charging Strategy Study and the Application on Charging Station Placement." Autonomous Agents and Multi-Agent Systems (JAAMAS)
2020c	Qian Han, V. S. Subrahmanian and Yanhai Xiong . "Android Malware Detection via (Somewhat) Robust Irreversible Feature Transformations." IEEE Transactions on Information Forensics and Security (IEEE TIFS)
2020b	Haipeng Chen, Qian Han, Sushil Jajodia, Roy Lindelauf, V.S. Subrahmanian and Yanhai Xiong . "Disclose or Exploit? A Game Theoretic Approach Towards Strategic Decision Making in Cyber Warfare." IEEE Systems Journal (IEEE SYST J)
2020a	Haipeng Chen, Mohammad T. Hajiaghayi, Sarit Kraus, Anshul Sawant, Edoardo Serra, V.S. Subrahmanian and Yanhai Xiong . "PIE: A Data-Driven Payoff Inference Engine with Counter-Terrorism Applications." IEEE Transactions on Computational Social Systems (IEEE TCSS)
2018b	Yanhai Xiong [*] , Haipeng Chen [*] , Mengchen Zhao, Bo An. "HogRider: champion agent of Microsoft Malmo collaborative AI challenge." Thirty-Second AAAI Conference on Artificial Intelligence (AAAI'18). [*] Equal contribution. (Full paper + Oral, acceptance rate 933/3800 = 24.6%)
2018a	Yanhai Xiong . "Electric vehicle charging station placement and management." Ph.D. Dissertation
2017	Yanhai Xiong , Jiarui Gan, Bo An, Chunyan Miao, and Ana LC Bazzan. "Optimal electric vehicle fast charging station placement based on game theoretical framework." IEEE Transactions on Intelligent Transportation Systems (IEEE TITS)
2016	Yanhai Xiong , Jiarui Gan, Bo An, Chunyan Miao, and Yeng Chai Soh. "Optimal pricing for efficient electric vehicle charging station management." Proceedings of the 2016 International Conference on Autonomous Agents & Multiagent Systems (AAMAS'16). (Full paper + Oral, acceptance rate 137/550 = 25%)
2015	Yanhai Xiong , Jiarui Gan, Bo An, Chunyan Miao, and Ana LC Bazzan. "Optimal Electric Vehicle Charging Station Placement." Twenty-Fourth International Joint Conference on Artificial Intelligence (IJCAI'15). (Full paper + Oral, acceptance rate 572/1996 = 28.6%)

UNDER REVIEW WORK

2020	GEMA: Approximate Gradient-based Explanation of Black Box Model Predictions with Anecdotes.
2019	Generating Fake Documents using Probabilistic Logic Graphs. IEEE Transactions on Dependable and Secure Computing (IEEE TDSC)

ONGOING WORK

2020	Stability Analysis of Android Malware Families
2020	Android Malware Handbook and Related Machine Learning Techniques (with Google Android Security Team)
2020	Synthetic Android Malware Generation
2020	Fake Document Generation with Game Theory Model