Fnu Suya

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Professional Appointments

MC2 Postdoctoral Fellow, University of Maryland, College Park Oct 2023 - present

Education	
Ph.D. in Computer Science, University of Virginia Thesis: On the Limits of Data Poisoning Attacks Advisor: Yuan Tian (UCLA), David Evans	2017 – 2023
M.Sc. in Computer Science, <i>University of Virginia</i> Advisor: Yuan Tian (UCLA), David Evans	2017 – 2022
Ph.D. in Computer Science, Arizona State University Advisor: Paolo Papotti (EURECOM), discontinued due to advisor relocation	2015 – 2017
B.Eng. in Electrical Engineering (Honors), China Agricultural University	2010 - 2014

Research Interests

Trustworthy Machine Learning, Machine Learning for Security

Internship Experience

Research Intern, Qualcomm, San Diego (with Aleksei Triastcyn on robust FL)	2021
Research Intern, Amazon AWS, New York City (with MohamadAli Torkamani on GNNs)	2021
Research Intern, Bosch Al Center, Pittsburgh (with Anit Kumar Sahu on black-box attacks)	2020
Research Intern, Tsinghua University, China (with Bo Bai on wireless communication) 201	4-2015

Conference and Journal Papers Google Scholar ID: OmLIG8EAAAAJ

- 2024 F. Suya, A. Suri, T. Zhang, S. Hong, Y. Tian, D. Evans. "SoK: Pitfalls in Evaluating Black-Box Attacks". In: IEEE SaTML 2024.
- 2023a F. Suya, X. Zhang, Y. Tian, D. Evans. "What Distributions are Robust to Indiscriminate Poisoning Attacks for Linear Learners?" In: NeurIPS 2023.
- 2023b Y. Tian, F. Suya, A. Suri, F. Xu, D. Evans. "Manipulating Transfer Learning for Property Inference". In: CVPR 2023.
- 2022 Y. Tian, F. Suya, F. Xu, D. Evans. "Stealthy Backdoors as Compression Artifacts". In: IEEE TIFS.
- 2021 F. Suya, S. Mahloujifar, A. Suri, D. Evans, Y. Tian. "Model-Targeted Poisoning Attacks with Provable Convergence". In: ICML 2021.
- 2020a F. Suya, J. Chi, D. Evans, Y. Tian. "Hybrid Batch attacks: Finding Black-box Adversarial Examples with Limited Queries". In: USENIX Security 2020.
- 2020b J. Wang, M. Luo, F. Suya, J. Li, Z. Yang, Q. Zheng. "Scalable Attack on Graph Data by Injecting Vicious Nodes". In: ECML-PKDD 2020.
- 2019 Y. Chen, M. Zha, N. Zhang, D. Xu, Q. Zhao, X. Feng, K. Yuan, F. Suya, Y. Tian, K. Chen, X. Wang, W. Zou. "Demystifying Hidden Privacy Settings in Mobile Apps". In: IEEE S&P (Oakland) 2019.
- 2016 F. Suya, Y. Shi, B. Bai, W. Chen, J. Zhang, K. B. Letaief, S. Zhou. "Optimal Stochastic Power Control with Compressive CSI Acquisition for Cloud-RAN". In: GlobalSIP 2016.

Workshop Papers and Posters

- K. Lin, M. Clyburn, F. Suya. "HackWrt: Network Traffic-Based **2023a** A. Kinfe. C. Jung, Eavesdropping of Handwriting". In: CPS-IoT Week 2023.
- 2023b F. Suya, X. Zhang, Y. Tian, D. Evans. "When Can Linear Learners be Robust to Indiscriminate Poisoning Attacks?" In: ICML AdvML-Frontiers Workshop 2023.
- 2022 E. Rose, F. Suya, D. Evans. "Poisoning Attacks and Subpopulation Susceptibility". In: VISxAI workshop 2022 (Best Paper Award).
- 2018 F. Suya, D. Evans, Y. Tian. "Poster: Adversaries Don't Care About Averages: Batch Attacks on Black-Box Classifiers". In: IEEE S&P (Oakland) 2018.
- 2017 F. Suya, Y. Tian, D. Evans, P. Papotti. "Query-limited Black-box Attacks to Classifiers". In: N(eur)IPS MLSec Workshop 2017 (Spotlight Presentation).

Talks and Presentations

1. What Distributions are	Robust to	Indiscriminate	Poisoning	Attacks for	Linear	Learners?	
NeurIPS. New Orleans. LA	4					Dec.	2023

2. When Can Linear Learners be Robust to Indiscriminate Poisoning Attacks? ICML Workshop on AdvML-Frontiers, Online

Jul, 2023

3. Model-Targeted Poisoning Attacks with Provable Convergence ICML, Online

Jul, 2021

4. Hybrid Batch Attacks: Finding Black-box Adversarial Examples with Limited Queries Usenix Security, Online 5. Adversaries Don't Care About Averages: Batch Attacks on Black-Box Classifiers

Aug, 2020

IEEE S&P (Oakland), San Francisco, CA

May, 2018

6. Query-limited Black-box Attacks to Classifiers

N(eur)IPS workshop on MLSec, Long Beach, CA

Dec, 2017

7. Optimal Stochastic Power Control with Compressive CSI Acquisition for Cloud-RAN GlobalSIP, Washington DC

Dec, 2016

Mentoring Experience

- Yulong Tian (Visiting PhD student at UVa, PhD student at NJU, China)
- o Tingwei Zhang (Undergraduate student at UVa, now a PhD student at Cornell CS)
- o Evan Rose (Undergraduate student at UVa, now a PhD student at Northeastern CS)
- o Scott Hong (Undergraduate student at UVa, now a MS student at Columbia)
- Sangsu Kwag (PhD Student at UMD)
- Shayan Shabihi (PhD Student at UMD)

Teaching Experience

Honors & Awards

 Learning Theory (UVA CS 6501-005), TA 	S2019
o Cryptography (UVA CS 6501-009), TA	S2019
o Game Theory (ASU CSE 556), TA	F2016
\circ Introduction to C++ Programming (ASU CSE 100), TA	F2015 - S2016

F2015 - S2016

o Introduction to Programming Languages (ASU CSE 240), TA

 MC2 Postdoctoral Fellowship: awarded annually to one individual by the Maryland Cybersecurity Center (MC2) 2023

o Outstanding/Top Reviewer: ICLR 2022, NeurIPS 2022, 2023	
 CS Graduate Research Award, University of Virginia 	2018
o CS Department Fellowship, University of Virginia	2017
NSF Travel Grant	2016
o CIDSE Doctoral Fellowship, Arizona State University	2015
 Outstanding Student Scholarship, China Agricultural University 	2011 – 2013

Service

PC/Reviewer	IEEE EuroS&P, IEEE S&P, ICML, NeurIPS, ICLR, ICCV, CVPR, AISTATS, IJCAI
Journal Reviewer Sub-Reviewer	Artificial Intelligence, TMLR IEEE EuroS&P, IEEE S&P, Usenix Security, NDSS, CCS, Sensys, ASIACCS, AAAI, SIGMOD

Skills

Programing	Python, PyTorch, TensorFlow, Matlab, C, $C++$
Languages	Mongolian (native), Mandarin, English