# Fnu Suya

Suyeecav • Updated on November 30, 2023

### **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	
<b>Ph.D. in Computer Science</b> , <i>Arizona State University</i> 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) 2014	4-2015

## Conference and Journal Papers Google Scholar ID: OmLIG8EAAAAJ

- 2023a F. Suya, A. Suri, T. Zhang, S. Hong, Y. Tian, D. Evans. "SoK: Pitfalls in Evaluating Black-Box Attacks". In: Under Submission.
- 2023b F. Suya, X. Zhang, Y. Tian, D. Evans. "What Distributions are Robust to Indiscriminate Poisoning Attacks for Linear Learners?" In: NeurIPS 2023.
- 2023c 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**

- **2023a** A. Kinfe, C. Jung, K. Lin, M. Clyburn, **F. Suya**. "HackWrt: Network Traffic-Based Eavesdropping of Handwriting". In: *CPS-loT 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 Ro	ist to indiscriminate Poisoning	Attacks for Linear	Learners!
NeurIPS, New Orleans, LA			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\*\*

Aug, 2020

5. Adversaries Don't Care About Averages: Batch Attacks on Black-Box Classifiers *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

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**

o 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
o Introduction to Programming Languages (ASU CSE 240), TA	F2015 - S2016

#### **Honors & Awards**

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

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