Fnu Suya

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EDUCATION

PhD Candidate, Department of Computer Science, University of Virginia

Aug 2017 – PRESENT

- Adviser: Prof. David Evans, Prof. Yuan Tian
- Focus: Security and Privacy in Machine Learning

PhD Student, Department of Computer Science, Arizona State University

Aug 2015 – May 2017

- Adviser: Prof. Guoliang Xue, Prof. Paolo Papotti
- Focus: Game Theory and Incentive Mechanism Design, Privacy in Machine Learning

BEng, Department of Electronic Engineering, China Agricultural University

■ Honors Program (most selective program)

Aug 2010 - Jul 2014

RESEARCH EXPERIENCE

Department of Computer Science, University of Virginia

Graduate Research Assistant

Aug 2017 - PRESENT

- Designed hybrid batch attack against DNN models in limited query setting and outperforms state-of-the-art black-box attacks significantly in terms of query efficiency.
- Designed query efficient black-box attacks to ML classifiers based on Bayesian optimization.

Department of Computer Science, Arizona State University

Graduate Research Assistant

Aug 2015 – May 2017

- Designed user profile obfuscation strategy based on Bayesian optimization to protect user privacy in black-box setting.
- Designed optimal wireless transmission strategy in the presence of malicious adversaries from a Stackelberg game perspective.
- Worked on designing truthful auction mechanism under sybil attack for radio spectrum allocation.

Department of Electronic Engineering, Tsinghua University

Undergraduate Researcher

Aug 2014 – Feb 2015

 Designed an efficient transmission strategy for Cloud-RAN network with optimality guarantees under probabilistic quality-of-service constraints with imperfect channel state information.

PUBLICATIONS

- Jihong Wang, Minnan Luo, <u>Fnu Suya</u>, Jundong Li, Zijiang Yang, Qinghua Zheng "Attack on Graph Data by Injecting Vicious Nodes", <u>Preprint</u>
- Fnu Suya, Jianfeng Chi, David Evans, Yuan Tian, "Hybrid Batch Attacks: Finding Black-box Adversarial Examples with Limited Queries", 29th USENIX Security Symposium (Usenix Security 2020)
- Yi Chen, Mingming Zha, Nan Zhang, Dandan Xu, Qianqian Zhao, Xuan Feng, Kan Yuan, Fnu Suya, Yuan Tian, Kai Chen, XiaoFeng Wang, Wei Zou, "Demystifying Hidden Privacy Settings in Mobile Apps", 40th IEEE Symposium on Security and Privacy (Oakland 2019)
- Fnu Suya, David Evans, Yuan Tian, "Poster: Adversaries Don't Care About Averages: Batch Attacks on Black-Box Classifiers", 39th IEEE Symposium on Security and Privacy (Oakland 2018)
- Fnu Suya, Yuan Tian, David Evans, Paolo Papotti, "Qury-limited Black Box Attacks to Classifiers", NIPS Workshop on Machine Learning and Computer Security 2017
- Fnu Suya, Yuanming Shi, Bo Bai, Wei Chen, Jun Zhang, Khaled B. Letaief, and Shidong Zhou, "Optimal Stochastic Power Control with Compressive CSI Acquisition for Cloud-RAN", IEEE Global Conference on Signal and Information Processing (GlobalSIP) 2016

AWARDS & SCHOLARSHIPS

• CS Graduate Research Award, University of Virginia

2018

• CS Department Fellowship, University of Virginia

2017

• Excellent Student's Scholarship, China Agricultural University 2011 - 2013■ Proficient with TensorFlow, Python, Matlab, LATEX **TECHNICAL SKILLS** ■ Familiar with PyTorch, C, C++, Shell script **TEACHING** ■ Teaching Assistant at University of Virginia **EXPERIENCE** • CS 6501: Learning Theory • CS 6501: Cryptography ■ Teaching Assistant at Arizona State University • CSE 556: Game Theory • CSE 100: Introduction to C++ Programming • CSE 240: Introduction to Programming Languages **ACADEMIC** Journal Reviewer: China Communications **SERVICE** • External Reviewer: IEEE S&P, Usenix Security, NDSS, CCS, ASIACCS, NIPS, AAAI, SIGMOD, DASFAA, MobiHoc **LANGUAGES** Mongolian (Native), Chinese (Proficient), English (Proficient)

2016

2015

■ NSF Travel Grant, GlobalSIP 2016

Available Upon Request

REFERENCES

• CIDSE Doctoral Fellowship, Arizona State University