Anqi Chen

Contact Information

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Cell: (857) 385-9318

Education

Northeastern University, Boston, MA
PhD in Cybersecurity — **Sep. 2022 – present**
- Expected Graduation: Jun. 2028
- Advisor: Dr. Cristina Nita-Rotaru

Peking University, Beijing, China
BS in Computer Science — **Sep. 2018 – Jun. 2022**

Research Interests

Network Security, Stateful Protocol Fuzzing, Formal Methods, Autonomous Vehicle Security

Professional Experience

Northeastern University, Boston, MA — **Sep. 2022 – present**
Research Assistant, Networks and Distributed Systems Security Lab
- *VPN Protocol Vulnerability Discovery:* Design and implement a fuzzing tool to automatically discover vulnerabilities in VPN protocol implementations, currently focusing on OpenVPN.
- *Attacks Against Autonomous Vehicle:* Designed and implemented an Automatic Emergency Braking System(AEBS) in the CARLA simulation platform to help provide a realistic testing environment for the proposed attack, which used an optimization-based method for adaptive generation of image perturbations at run-time.

Peking University, Beijing, China — **Jun. 2021 – Oct. 2021**
Remote Research, advised by Dr. Tianhao Wang, Assistant Professor at UVA
- *DPSyn: an Open-source Differential Privacy Tool:* Implemented a tool [github link] for synthesizing microdata for data analysis while satisfying differential privacy, based on the algorithm proposed in the paper PrivSyn: Differentially Private Data Synthesis.

Publications

Runtime Stealthy Perception Attacks against DNN-based Adaptive Cruise Control Systems — **Apr. 2024**
Xugui Zhou, **Anqi Chen**, Maxfield Kouzel, Haotian Ren, Morgan McCarty, Cristina Nita-Rotaru, Homa Alemzadeh
arXiv: 2307.08939

Teaching

Northeastern University, Boston, MA
- CS6240: Large-Scale Parallel Data Processing, Teaching Assistant, Spring 2024
- CY4740: Network Security, Teaching Assistant, Fall 2023

Selected Courses

Network Security, Software Vulnerabilities and Security, Machine Learning, Formal Specification, Verification and Synthesis, Intensive Computer Systems, Operating System, Computer Network

Languages and Technologies

- Python, C/C++, NuXMV, TAMARIN, Bash, MATLAB, SQL, JSON, LaTeX
- Linux, Windows, Mac OSX
- Git, Docker, OpenPilot, CARLA

Hornors and Awards

- The Highest Award in 2020 Differential Privacy Temporal Map Challenge: Open Source and Development Contest, NIST PSCR (2021)
- Merit Scholarship, Peking University (2021)
- Award for Scientific Research, Peking University (2021)
- Excellent Volunteer, Peking University (2020)