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Xiaoyuan Wu (Carnegie Mellon University), Lydia Hu (Carnegie Mellon University), Eric Zeng (Carnegie Mellon University), Hana Habib (Carnegie Mellon University), Lujo Bauer (Carnegie Mellon University)

I Know What You Asked: Prompt Leakage via KV-Cache Sharing in Multi-Tenant LLM Serving

Guanlong Wu (Southern University of Science and Technology), Zheng Zhang (ByteDance Inc.), Yao Zhang (ByteDance Inc.), Weili Wang (Southern University of Science and Technology), Jianyu Niu (Southern University of Science and Technology), Ye Wu (ByteDance Inc.), Yinqian Zhang (Southern University of Science and Technology (SUSTech))

IsolateGPT: An Execution Isolation Architecture for LLM-Based Agentic Systems

Yuhao Wu (Washington University in St. Louis), Franziska Roesner (University of Washington), Tadayoshi Kohno (University of Washington), Ning Zhang (Washington University in St. Louis), Umar Iqbal (Washington University in St. Louis)

Session 6B: Confidential Computing 1 “Shh! Keeping Secrets in the Cloud”

LeakLess: Selective Data Protection against Memory Leakage Attacks for Serverless Platforms

Maryam Rostamipoor (Stony Brook University), Seyedhamed Ghavamnia (University of Connecticut), Michalis Polychronakis (Stony Brook University)

Blindfold: Confidential Memory Management by Untrusted Operating System

Caihua Li (Yale University), Seung-seob Lee (Yale University), Lin Zhong (Yale University)

TME-Box: Scalable In-Process Isolation through Intel TME-MK Memory Encryption

Martin Unterguggenberger (Graz University of Technology), Lukas Lamster (Graz University of Technology), David Schrammel (Graz University of Technology), Martin Schwarzl (Cloudflare, Inc.), Stefan Mangard (Graz University of Technology)

Session 6C: Sensor Attacks “Your Sensors Are Watching...and They’re Vulnerable”

PhantomLiDAR: Cross-modality Signal Injection Attacks against LiDAR

Zizhi Jin (Zhejiang University), Qinhong Jiang (Zhejiang University), Xuancun Lu (Zhejiang University), Chen Yan (Zhejiang University), Xiaoyu Ji (Zhejiang University), Wenyuan Xu (Zhejiang University)

PowerRadio: Manipulate Sensor Measurement via Power GND Radiation

Yan Jiang (Zhejiang University), Xiaoyu Ji (Zhejiang University), Yancheng Jiang (Zhejiang University), Kai Wang (Zhejiang University), Chenren Xu (Peking University), Wenyuan Xu (Zhejiang University)

Interventional Root Cause Analysis of Failures in Multi-Sensor Fusion Perception Systems

Shuguang Wang (City University of Hong Kong), Qian Zhou (City University of Hong Kong), Kui Wu (University of Victoria), Jinghui Deng (City University of Hong Kong), Dapeng Wu (City University of Hong Kong), Wei-Bin Lee (Information Security Center, Hon Hai Research Institute), Jianping Wang (City University of Hong Kong)

Session 6D: Software Security: Vulnerability Detection “Finding Bugs Before the Hackers Do”

Too Subtle to Notice: Investigating Executable Stack Issues in Linux Systems

Hengkai Ye (The Pennsylvania State University), Hong Hu (The Pennsylvania State University)

RACONTEUR: A Knowledgeable, Insightful, and Portable LLM-Powered Shell Command Explainer

Jiangyi Deng (Zhejiang University), Xinfeng Li (Zhejiang University), Yanjiao Chen (Zhejiang University), Yijie Bai (Zhejiang University), Haiqin Weng (Ant Group), Yan Liu (Ant Group), Tao Wei (Ant Group), Wenyuan Xu (Zhejiang University)

GadgetMeter: Quantitatively and Accurately Gauging the Exploitability of Speculative Gadgets

Qi Ling (Purdue University), Yujun Liang (Tsinghua University), Yi Ren (Tsinghua University), Baris Kasikci (University of Washington and Google), Shuwen Deng (Tsinghua University)

Session 7A: Network Security 2 “Not Your Average Network: A Deep Dive into Security”

ReDAN: An Empirical Study on Remote DoS Attacks against NAT Networks

Xuwei Feng (Tsinghua University), Yuxiang Yang (Tsinghua University), Qi Li (Tsinghua University), Xingxiang Zhan (Zhongguancun Lab), Kun Sun (George Mason University), Ziqiang Wang (Southeast University), Ao Wang (Southeast University), Ganqiu Du (China Software Testing Center), Ke Xu (Tsinghua University)

A Large-Scale Measurement Study of the PROXY Protocol and its Security Implications

Stijn Pletinckx (University of California, Santa Barbara), Christopher Kruegel (University of California, Santa Barbara), Giovanni Vigna (University of California, Santa Barbara)

ProvGuard: Detecting SDN Control Policy Manipulation via Contextual Semantics of Provenance Graphs

Ziwen Liu (Beihang University), Jian Mao (Beihang University; Tianmushan Laboratory; Hangzhou Innovation Institute, Beihang University), Jun Zeng (National University of Singapore), Jiawei Li (Beihang University; National University of Singapore), Qixiao Lin (Beihang University), Jiahao Liu (National University of Singapore), Jianwei Zhuge (Tsinghua University; Zhongguancun Laboratory), Zhenkai Liang (National University of Singapore)

LAMP: Lightweight Approaches for Latency Minimization in Mixnets with Practical Deployment Considerations

Mahdi Rahimi (KU Leuven), Piyush Kumar Sharma (University of Michigan), Claudia Diaz (KU Leuven)

Mysticeti: Reaching the Latency Limits with Uncertified DAGs

Kushal Babel (Cornell Tech & IC3), Andrey Chursin (Mysten Labs), George Danezis (Mysten Labs & University College London (UCL)), Anastasios Kichidis (Mysten Labs), Lefteris Kokoris-Kogias (Mysten Labs & IST Austria), Arun Koshy (Mysten Labs), Alberto Sonnino (Mysten Labs & University College London (UCL)), Mingwei Tian (Mysten Labs)

Session 7B: Trusted Hardware and Execution “The Trusted Hardware: No Secrets Left Inside”

SCRUTINIZER: Towards Secure Forensics on Compromised TrustZone

Yiming Zhang (Southern University of Science and Technology and The Hong Kong Polytechnic University), Fengwei Zhang (Southern University of Science and Technology), Xiapu Luo (The Hong Kong Polytechnic University), Rui Hou (Institute of Information Engineering, Chinese Academy of Sciences), Xuhua Ding (Singapore Management University), Zhenkai Liang (National University of

Singapore), Shoumeng Yan (Ant Group), Tao Wei (Ant Group), Zhengyu He (Ant Group)

A Formal Approach to Multi-Layered Privileges for Enclaves

Ganxiang Yang (Shanghai Jiao Tong University), Chenyang Liu (Shanghai Jiao Tong University), Zhen Huang (Shanghai Jiao Tong University), Guoxing Chen (Shanghai Jiao Tong University), Hongfei Fu (Shanghai Jiao Tong University), Yuanyuan Zhang (Shanghai Jiao Tong University), Haojin Zhu (Shanghai Jiao Tong University)

CounterSEveillance: Performance-Counter Attacks on AMD SEV-SNP

Stefan Gast (Graz University of Technology), Hannes Weissteiner (Graz University of Technology), Robin Leander Schröder (Fraunhofer SIT, Darmstadt, Germany and Fraunhofer Austria, Vienna, Austria), Daniel Gruss (Graz University of Technology)

TZ-DATASHIELD: Automated Data Protection for Embedded Systems via Data-Flow-Based Compartmentalization

Zelun Kong (University of Texas at Dallas), Minkyung Park (University of Texas at Dallas), Le Guan (University of Georgia), Ning Zhang (Washington University in St. Louis), Chung Hwan Kim (University of Texas at Dallas)

The Road to Trust: Building Enclaves within Confidential VMs

Wenhao Wang (Key Laboratory of Cyberspace Security Defense, Institute of Information Engineering, CAS), Linke Song (Key Laboratory of Cyberspace Security Defense, Institute of Information Engineering, CAS), Benshan Mei (Key Laboratory of Cyberspace Security Defense, Institute of Information Engineering, CAS), Shuang Liu (Ant Group), Shijun Zhao (Key Laboratory of Cyberspace Security Defense, Institute of Information Engineering, CAS), Shoumeng Yan (Ant Group), XiaoFeng Wang (Indiana University Bloomington), Dan Meng (Institute of Information Engineering, CAS), Rui Hou (Key Laboratory of Cyberspace Security Defense, Institute of Information Engineering, CAS)

Session 7C: Secure Protocols “Handshake With Caution: Securing the Digital Dialogue”

Rondo: Scalable and Reconfiguration-Friendly Randomness Beacon

Xuanji Meng (Tsinghua University), Xiao Sui (Shandong University), Zhaoxin Yang (Tsinghua University), Kang Rong (Blockchain Platform Division, Ant Group), Wenbo Xu (Blockchain Platform Division, Ant Group), Shenglong Chen (Blockchain Platform Division, Ant Group), Ying Yan (Blockchain Platform Division, Ant Group), Sisi Duan (Tsinghua University)

Distributed Function Secret Sharing and Applications

Pengzhi Xing (University of Electronic Science and Technology of China), Hongwei Li (University of Electronic Science and Technology of China), Meng Hao (Singapore Management University), Hanxiao Chen (University of Electronic Science and Technology of China), Jia Hu (University of Electronic Science and Technology of China), Dongxiao Liu (University of Electronic Science and Technology of China)

PQConnect: Automated Post-Quantum End-to-End Tunnels

Daniel J. Bernstein (University of Illinois at Chicago and Academia Sinica), Tanja Lange (Eindhoven University of Technology and Academia Sinica), Jonathan Levin (Academia Sinica and Eindhoven University of Technology), Bo-Yin Yang (Academia Sinica)

Impact Tracing: Identifying the Culprit of Misinformation in Encrypted Messaging Systems

Zhongming Wang (Chongqing University), Tao Xiang (Chongqing University), Xiaoguo Li (Chongqing University), Biwen Chen (Chongqing University), Guomin Yang (Singapore Management University), Chuan Ma (Chongqing University), Robert H. Deng (Singapore Management University)

DiStefano: Decentralized Infrastructure for Sharing Trusted Encrypted Facts and Nothing More

Sofia Celi (Brave Software), Alex Davidson (NOVA LINCS & Universidade NOVA de Lisboa), Hamed Haddadi (Imperial College London & Brave Software), Gonçalo Pestana (Hashmatter), Joe Rowell (Information Security Group, Royal Holloway, University of London)

Session 7D: ML Security “Machine Learning...When Machines Learn to Hack You”

AlphaDog: No-Box Camouflage Attacks via Alpha Channel Oversight

Qi Xia (University of Texas at San Antonio), Qian Chen (University of Texas at San Antonio)

Understanding Data Importance in Machine Learning Attacks: Does Valuable Data Pose Greater Harm?

Rui Wen (CISPA Helmholtz Center for Information Security), Michael Backes (CISPA Helmholtz Center for Information Security), Yang Zhang (CISPA Helmholtz Center for Information Security)

DLBox: New Model Training Framework for Protecting Training Data

Jaewon Hur (Seoul National University), Juheon Yi (Nokia Bell Labs, Cambridge, UK), Cheolwoo Myung (Seoul National University), Sangyun Kim (Seoul National University), Youngki Lee (Seoul National University), Byoungyoung Lee (Seoul National University)

A New PPML Paradigm for Quantized Models

Tianpei Lu (The State Key Laboratory of Blockchain and Data Security, Zhejiang University), Bingsheng Zhang (The State Key Laboratory of Blockchain and Data Security, Zhejiang University), Xiaoyuan Zhang (The State Key Laboratory of Blockchain and Data Security, Zhejiang University), Kui Ren (The State Key Laboratory of Blockchain and Data Security, Zhejiang University)

Probe-Me-Not: Protecting Pre-trained Encoders from Malicious Probing

Ruyi Ding (Northeastern University), Tong Zhou (Northeastern University), Lili Su (Northeastern University), Aidong Adam Ding (Northeastern University), Xiaolin Xu (Northeastern University), Yunsi Fei (Northeastern University)

Session 8A: Email Security “Phishing for Trouble: Don’t Get Hooked”

Cascading Spy Sheets: Exploiting the Complexity of Modern CSS for Email and Browser Fingerprinting

Leon Trampert (CISPA Helmholtz Center for Information Security), Daniel Weber (CISPA Helmholtz Center for Information Security), Lukas Gerlach (CISPA Helmholtz Center for Information Security), Christian Rossow (CISPA Helmholtz Center for Information Security), Michael Schwarz (CISPA Helmholtz Center for Information Security)

HADES Attack: Understanding and Evaluating Manipulation Risks of Email Blocklists

Ruixuan Li (Tsinghua University), Chaoyi Lu (Tsinghua University), Baojun Liu (Tsinghua University; Zhongguancun Laboratory), Yunyi Zhang (Tsinghua University), Geng Hong (Fudan University), Haixin Duan (Tsinghua University; Zhongguancun Laboratory), Yanzhong Lin (Coremail Technology Co. Ltd), Qingfeng Pan (Coremail Technology Co. Ltd), Min Yang (Fudan University), Jun Shao (Zhejiang Gongshang University)

Automatic Insecurity: Exploring Email Auto-configuration in the Wild

Shushang Wen (School of Cyber Science and Technology, University of Science and Technology of China), Yiming Zhang (Tsinghua University), Yuxiang Shen (School of Cyber Science and Technology, University of Science and Technology of China), Bingyu Li (School of Cyber Science and Technology, Beihang University), Haixin Duan (Tsinghua University; Zhongguancun Laboratory), Jingqiang Lin (School of Cyber Science and Technology, University of Science and Technology of China)

A Multifaceted Study on the Use of TLS and Auto-detect in Email Ecosystems

Ka Fun Tang (The Chinese University of Hong Kong), Che Wei Tu (The Chinese University of Hong Kong), Sui Ling Angela Mak (The Chinese University of Hong Kong), Sze Yiu Chau (The Chinese University of Hong Kong)

Session 8B: Electromagnetic Attacks “Zap! The Shocking World of EMF Vulnerabilities”

ReThink: Reveal the Threat of Electromagnetic Interference on Power Inverters

Fengchen Yang (Zhejiang University; ZJU QI-ANXIN IoT Security Joint Laboratory), Zihao Dan (Zhejiang University; ZJU QI-ANXIN IoT Security Joint Laboratory), Kaikai Pan (Zhejiang University; ZJU QI-ANXIN IoT Security Joint Laboratory), Chen Yan (Zhejiang University; ZJU QI-ANXIN IoT Security Joint Laboratory), Xiaoyu Ji (Zhejiang University; ZJU QI-ANXIN IoT Security Joint Laboratory), Wenyan Xu (Zhejiang University; ZJU QI-ANXIN IoT Security Joint Laboratory)

LightAntenna: Characterizing the Limits of Fluorescent Lamp-Induced Electromagnetic Interference

Fengchen Yang (Zhejiang University), Wenzhe Cui (Zhejiang University), Xinfeng Li (Zhejiang University), Chen Yan (Zhejiang University), Xiaoyu Ji (Zhejiang University), Wenyan Xu (Zhejiang University)

GhostShot: Manipulating the Image of CCD Cameras with Electromagnetic Interference
Yanze Ren (Zhejiang University), Qinhong Jiang (Zhejiang University), Chen Yan (Zhejiang University), Xiaoyu Ji (Zhejiang University), Wenyuan Xu (Zhejiang University)

EMIRIS: Eavesdropping on Iris Information via Electromagnetic Side Channel
Wenhao Li (Shandong University), Jiahao Wang (Shandong University), Guoming Zhang (Shandong University), Yanni Yang (Shandong University), Riccardo Spolaor (Shandong University), Xiuzhen Cheng (Shandong University), Pengfei Hu (Shandong University)

Session 8C: Hard- & Firmware Security “The Bare Metal of Security: Protecting Hardware and Firmware”

Mens Sana In Corpore Sano: Sound Firmware Corpora for Vulnerability Research
René Helmke (Fraunhofer FKIE), Elmar Padilla (Fraunhofer FKIE), Nils Aschenbruck (University of Osnabrück)

LLMPirate: LLMs for Black-box Hardware IP Piracy
Vasudev Gohil (Texas A&M University), Matthew DeLorenzo (Texas A&M University), Veera Vishwa Achuta Sai Venkat Nallam (Texas A&M University), Joey See (Texas A&M University), Jeyavijayan Rajendran (Texas A&M University)

CCTAG: Configurable and Combinable Tagged Architecture
Zhanpeng Liu (Peking University), Yi Rong (Tsinghua University), Chenyang Li (Peking University), Wende Tan (Tsinghua University), Yuan Li (Zhongguancun Laboratory), Xinhui Han (Peking University), Songtao Yang (Zhongguancun Laboratory), Chao Zhang (Tsinghua University)

A Comprehensive Memory Safety Analysis of Bootloaders
Jianqiang Wang (CISPA Helmholtz Center for Information Security), Meng Wang (CISPA Helmholtz Center for Information Security), Qinying Wang (Zhejiang University), Nils Langius (Leibniz Universität Hannover), Li Shi (ETH Zurich), Ali Abbasi (CISPA Helmholtz Center for Information Security), Thorsten Holz (CISPA Helmholtz Center for Information Security)

Session 8D: Privacy & Usability 2 “Usability Meets Privacy: Can They Ever Get Along?”

Balancing Privacy and Data Utilization: A Comparative Vignette Study on User Acceptance of Data Trustees in Germany and the US
Leona Lassak (Ruhr University Bochum), Hanna Püschel (TU Dortmund University), Oliver D. Reithmaier (Leibniz University Hannover), Tobias Gostomzyk (TU Dortmund University), Markus Dürmuth (Leibniz University Hannover)

PolicyPulse: Precision Semantic Role Extraction for Enhanced Privacy Policy Comprehension
Andrick Adhikari (University of Denver), Sanchari Das (University of Denver), Rinku Dewri (University of Denver)

SKILLPoV: Towards Accessible and Effective Privacy Notice for Amazon Alexa Skills
*Jingwen Yan (Clemson University), Song Liao (Texas Tech University),
Mohammed Aldeen (Clemson University), Luyi Xing (Indiana University
Bloomington), Danfeng (Daphne) Yao (Virginia Tech), Long Cheng (Clemson
University)*

"Who is Trying to Access My Account?" Exploring User Perceptions and Reactions to
Risk-based Authentication Notifications

*Tongxin Wei (Nankai University), Ding Wang (Nankai University), Yutong Li
(Nankai University), Yuehuan Wang (Nankai University)*

Session 9A: Android Security 2 “Appetizers and Exploits: The Secrets of Your Favorite Android Apps”

An Empirical Study on Fingerprint API Misuse with Lifecycle Analysis in Real-world
Android Apps

*Xin Zhang (Fudan University), Xiaohan Zhang (Fudan University), Zhichen Liu
(Fudan University), Bo Zhao (Fudan University), Zhemin Yang (Fudan
University), Min Yang (Fudan University)*

Vulnerability, Where Art Thou? An Investigation of Vulnerability Management in Android
Smartphone Chipsets

*Daniel Klischies (Ruhr University Bochum), Philipp Mackensen (Ruhr University
Bochum), Veelasha Moonsamy (Ruhr University Bochum)*

ScopeVerif: Analyzing the Security of Android’s Scoped Storage via Differential Analysis
*Zeyu Lei (Purdue University), Güliz Seray Tuncay (Google), Beatrice Carissa
Williem (Purdue University), Z. Berkay Celik (Purdue University), Antonio Bianchi
(Purdue University)*

Session 9B: DNN Attack Surfaces “Neural Networks Under Attack: When Deep Learning Gets Too Deep”

Compiled Models, Built-In Exploits: Uncovering Pervasive Bit-Flip Attack Surfaces in
DNN Executables

*Yanzuo Chen (The Hong Kong University of Science and Technology), Zhibo Liu
(The Hong Kong University of Science and Technology), Yuanyuan Yuan (The
Hong Kong University of Science and Technology), Sihang Hu (Huawei
Technologies), Tianxiang Li (Huawei Technologies), Shuai Wang (The Hong
Kong University of Science and Technology)*

BitShield: Defending Against Bit-Flip Attacks on DNN Executables

*Yanzuo Chen (The Hong Kong University of Science and Technology),
Yuanyuan Yuan (The Hong Kong University of Science and Technology), Zhibo
Liu (The Hong Kong University of Science and Technology), Sihang Hu (Huawei
Technologies), Tianxiang Li (Huawei Technologies), Shuai Wang (The Hong
Kong University of Science and Technology)*

ASGARD: Protecting On-Device Deep Neural Networks with Virtualization-Based Trusted Execution Environments

Myungsuk Moon (Yonsei University), Minhee Kim (Yonsei University), Joonkyo Jung (Yonsei University), Dokyung Song (Yonsei University)

Session 9C: Phishing & Fraud 2 “Too Good to Be True: How Frauds Get the Hook”

Ctrl+Alt+Deceive: Quantifying User Exposure to Online Scams

Platon Kotzias (Norton Research Group, BforeAI), Michalis Pachilakis (Norton Research Group, Computer Science Department University of Crete), Javier Aldana Iuit (Norton Research Group), Juan Caballero (IMDEA Software Institute), Iskander Sanchez-Rola (Norton Research Group), Leyla Bilge (Norton Research Group)

The Guardians of Name Street: Studying the Defensive Registration Practices of the Fortune 500

Boladji Vinny Adjibi (Georgia Tech), Athanasios Avgetidis (Georgia Tech), Manos Antonakakis (Georgia Tech), Michael Bailey (Georgia Tech), Fabian Monroe (Georgia Tech)

Dissecting Payload-based Transaction Phishing on Ethereum

Zhuo Chen (Zhejiang University), Yufeng Hu (Zhejiang University), Bowen He (Zhejiang University), Dong Luo (Zhejiang University), Lei Wu (Zhejiang University), Yajin Zhou (Zhejiang University)

Session 9D: Github + OSN Security “Code, Commit, and Commit to Security”

Tweezers: A Framework for Security Event Detection via Event Attribution-centric Tweet Embedding

Jian Cui (Indiana University), Hanna Kim (KAIST), Eugene Jang (S2W Inc.), Dayeon Yim (S2W Inc.), Kicheol Kim (S2W Inc.), Yongjae Lee (S2W Inc.), Jin-Woo Chung (S2W Inc.), Seungwon Shin (KAIST), Xiaojing Liao (Indiana University)

Rethinking Trust in Forge-Based Git Security

Aditya Sirish A Yelgundhalli (New York University), Patrick Zielinski (New York University), Reza Curtmola (New Jersey Institute of Technology), Justin Cappos (New York University)

Attributing Open-Source Contributions is Critical but Difficult: A Systematic Analysis of GitHub Practices and Their Impact on Software Supply Chain Security

Jan-Ulrich Holtgrave (CISPA Helmholtz Center for Information Security), Kay Friedrich (CISPA Helmholtz Center for Information Security), Fabian Fischer (CISPA Helmholtz Center for Information Security), Nicolas Huaman (Leibniz University Hannover), Niklas Busch (CISPA Helmholtz Center for Information Security), Jan H. Klemmer (CISPA Helmholtz Center for Information Security), Marcel Fourné (Paderborn University), Oliver Wiese (CISPA Helmholtz Center for Information Security), Dominik Wermke (North Carolina State University), Sascha Fahl (CISPA Helmholtz Center for Information Security)

Session 10A: Confidential Computing 2 “Sealed Envelopes: How Secure Is Your Data in the Box?”

WAVEN: WebAssembly Memory Virtualization for Enclaves

Weili Wang (Southern University of Science and Technology), Honghan Ji (ByteDance Inc.), Peixuan He (ByteDance Inc.), Yao Zhang (ByteDance Inc.), Ye Wu (ByteDance Inc.), Yinqian Zhang (Southern University of Science and Technology)

Secure Data Analytics in Apache Spark with Fine-grained Policy Enforcement and Isolated Execution

Byeongwook Kim (Seoul National University), Jaewon Hur (Seoul National University), Adil Ahmad (Arizona State University), Byoungyoung Lee (Seoul National University)

RContainer: A Secure Container Architecture through Extending ARM CCA Hardware Primitives

Qihang Zhou (Institute of Information Engineering, Chinese Academy of Sciences), Wenzhuo Cao (Institute of Information Engineering, Chinese Academy of Sciences; School of Cyberspace Security, University of Chinese Academy of Sciences), Xiaoqi Jia (Institute of Information Engineering, Chinese Academy of Sciences), Peng Liu (The Pennsylvania State University, USA), Shengzhi Zhang (Department of Computer Science, Metropolitan College, Boston University, USA), Jiayun Chen (Institute of Information Engineering, Chinese Academy of Sciences; School of Cyberspace Security, University of Chinese Academy of Sciences), Shaowen Xu (Institute of Information Engineering, Chinese Academy of Sciences; School of Cyberspace Security, University of Chinese Academy of Sciences), Zhenyu Song (Institute of Information Engineering, Chinese Academy of Science)

Session 10B: Ransomware “When the Hacker’s Got the Key and You Don’t”

ERW-Radar: An Adaptive Detection System against Evasive Ransomware by Contextual Behavior Detection and Fine-grained Content Analysis

Lingbo Zhao (Institute of Information Engineering, Chinese Academy of Sciences), Yuhui Zhang (Institute of Information Engineering, Chinese Academy of Sciences), Zhilu Wang (Institute of Information Engineering, Chinese Academy of Sciences), Fengkai Yuan (Institute of Information Engineering, CAS), Rui Hou (Institute of Information Engineering, Chinese Academy of Sciences)

All your (data)base are belong to us: Characterizing Database Ransom(ware) Attacks

Kevin van Liebergen (IMDEA Software Institute), Gibran Gomez (IMDEA Software Institute), Srdjan Matic (IMDEA Software Institute), Juan Caballero (IMDEA Software Institute)

Detecting Ransomware Despite I/O Overhead: A Practical Multi-Staged Approach

Christian van Sloun (RWTH Aachen University), Vincent Woeste (RWTH Aachen University), Konrad Wolsing (RWTH Aachen University & Fraunhofer FKIE), Jan Pennekamp (RWTH Aachen University), Klaus Wehrle (RWTH Aachen University)

Session 10C: Privacy Preservation “How to Keep Secrets...Without Telling Anyone”

On the Robustness of LDP Protocols for Numerical Attributes under Data Poisoning Attacks

Xiaoguang Li (Xidian University, Purdue University), Zitao Li (Alibaba Group (U.S.) Inc.), Ninghui Li (Purdue University), Wenhai Sun (Purdue University, West Lafayette, USA)

Iris: Dynamic Privacy Preserving Search in Authenticated Chord Peer-to-Peer Networks
Angeliki Aktypi (University of Oxford), Kasper Rasmussen (University of Oxford)

Recurrent Private Set Intersection for Unbalanced Databases with Cuckoo Hashing and Leveled FHE

Eduardo Chielle (New York University Abu Dhabi), Michail Maniatakos (New York University Abu Dhabi)

Session 10D: Machine Unlearning “Undoing the Machine's Memory: A Cyber Therapist's Guide”

TrajDeleter: Enabling Trajectory Forgetting in Offline Reinforcement Learning Agents
Chen Gong (University of Virginia), Kecen Li (Chinese Academy of Sciences), Jin Yao (University of Virginia), Tianhao Wang (University of Virginia)

Reinforcement Unlearning

Dayong Ye (University of Technology Sydney), Tianqing Zhu (City University of Macau), Congcong Zhu (City University of Macau), Derui Wang (CSIRO's Data61), Kun Gao (University of Technology Sydney), Zewei Shi (CSIRO's Data61), Sheng Shen (Torrens University Australia), Wanlei Zhou (City University of Macau), Minhui Xue (CSIRO's Data61)

Provably Unlearnable Data Examples

Derui Wang (CSIRO's Data61), Minhui Xue (CSIRO's Data61), Bo Li (The University of Chicago), Seyit Camtepe (CSIRO's Data61), Liming Zhu (CSIRO's Data61)

Session 11A: Blockchain Security 2 “The Ledger of Lies: Securing the Blockchain Wild West”

Silence False Alarms: Identifying Anti-Reentrancy Patterns on Ethereum to Refine Smart Contract Reentrancy Detection

Qiyang Song (Institute of Information Engineering, Chinese Academy of Sciences; School of Cyber Security, University of Chinese Academy of Sciences), Heqing Huang (Institute of Information Engineering, Chinese Academy of Sciences), Xiaoqi Jia (Institute of Information Engineering, Chinese Academy of Sciences; School of Cyber Security, University of Chinese Academy of Sciences), Yuanbo Xie (Institute of Information Engineering, Chinese Academy of Sciences; School of Cyber Security, University of Chinese Academy of Sciences), Jiahao Cao (Institute for Network Sciences and Cyberspace, Tsinghua University)

PropertyGPT: LLM-driven Formal Verification of Smart Contracts through Retrieval-Augmented Property Generation

Ye Liu (Singapore Management University), Yue Xue (MetaTrust Labs), Daoyuan Wu (The Hong Kong University of Science and Technology), Yuqiang Sun (Nanyang Technological University), Yi Li (Nanyang Technological University), Miaolei Shi (MetaTrust Labs), Yang Liu (Nanyang Technological University)

Alba: The Dawn of Scalable Bridges for Blockchains

Giulia Scaffino (TU Wien), Lukas Aumayr (TU Wien), Mahsa Bastankhah (Princeton University), Zeta Avarikioti (TU Wien), Matteo Maffei (TU Wien)

Horcrux: Synthesize, Split, Shift and Stay Alive; Preventing Channel Depletion via Universal and Enhanced Multi-hop Payments

Anqi Tian (Institute of Software, Chinese Academy of Sciences; School of Computer Science and Technology, University of Chinese Academy of Sciences), Peifang Ni (Institute of Software, Chinese Academy of Sciences; Zhongguancun Laboratory, Beijing, P.R.China), Yingzi Gao (Institute of Software, Chinese Academy of Sciences; University of Chinese Academy of Sciences), Jing Xu (Institute of Software, Chinese Academy of Sciences; University of Chinese Academy of Sciences ; Zhongguancun Laboratory, Beijing, P.R.China)

Session 11B: Binary Analysis “Byte-Sized Mysteries: Decoding the Binary Jungle”

VeriBin: Adaptive Verification of Patches at the Binary Level

Hongwei Wu (Purdue University), Jianliang Wu (Simon Fraser University), Ruoyu Wu (Purdue University), Ayushi Sharma (Purdue University), Aravind Machiry (Purdue University), Antonio Bianchi (Purdue University)

Beyond Classification: Inferring Function Names in Stripped Binaries via Domain Adapted LLMs

Linxi Jiang (The Ohio State University), Xin Jin (The Ohio State University), Zhiqiang Lin (The Ohio State University)

BinEnhance: An Enhancement Framework Based on External Environment Semantics for Binary Code Search

Yongpan Wang (Institute of Information Engineering Chinese Academy of Sciences & University of Chinese Academy of Sciences, China), Hong Li (Institute of Information Engineering Chinese Academy of Sciences & University of Chinese Academy of Sciences, China), Xiaojie Zhu (King Abdullah University of Science and Technology, Thuwal, Saudi Arabia), Siyuan Li (Institute of Information Engineering Chinese Academy of Sciences & University of Chinese Academy of Sciences, China), Chaopeng Dong (Institute of Information Engineering Chinese Academy of Sciences & University of Chinese Academy of Sciences, China), Shouguo Yang (Zhongguancun Laboratory, Beijing, China), Kangyuan Qin (Institute of Information Engineering Chinese Academy of Sciences & University of Chinese Academy of Sciences, China)

Unleashing the Power of Generative Model in Recovering Variable Names from Stripped Binary

Xiangzhe Xu (Purdue University), Zhuo Zhang (Purdue University), Zian Su (Purdue University), Ziyang Huang (Purdue University), Shiwei Feng (Purdue University), Yapeng Ye (Purdue University), Nan Jiang (Purdue University), Danning Xie (Purdue University), Siyuan Cheng (Purdue University), Lin Tan (Purdue University), Xiangyu Zhang (Purdue University)

Session 11C: Web Exploitation “The Web: It’s Full of Exploits and You Don’t Even Know”

Cross-Origin Web Attacks via HTTP/2 Server Push and Signed HTTP Exchange

Pinji Chen (Tsinghua University), Jianjun Chen (Tsinghua University & Zhongguancun Laboratory), Mingming Zhang (Zhongguancun Laboratory), Qi Wang (Tsinghua University), Yiming Zhang (Tsinghua University), Mingwei Xu (Tsinghua University), Haixin Duan (Tsinghua University)

Misdirection of Trust: Demystifying the Abuse of Dedicated URL Shortening Service

Zhibo Zhang (Fudan University), Lei Zhang (Fudan University), Zhangyue Zhang (Fudan University), Geng Hong (Fudan University), Yuan Zhang (Fudan University), Min Yang (Fudan University)

Do (Not) Follow the White Rabbit: Challenging the Myth of Harmless Open Redirection

Soheil Khodayari (CISPA Helmholtz Center for Information Security), Kai Glauber (Saarland University), Giancarlo Pellegrino (CISPA Helmholtz Center for Information Security)

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Blackbox Fuzzing of Distributed Systems with Multi-Dimensional Inputs and Symmetry-Based Feedback Pruning

Yonghao Zou (Beihang University and Peking University), Jia-Ju Bai (Beihang University), Zu-Ming Jiang (ETH Zurich), Ming Zhao (Arizona State University), Diyu Zhou (Peking University)

QMSan: Efficiently Detecting Uninitialized Memory Errors During Fuzzing

Matteo Marini (Sapienza University of Rome), Daniele Cono D'Elia (Sapienza University of Rome), Mathias Payer (EPFL), Leonardo Querzoni (Sapienza University of Rome)

Automatic Library Fuzzing through API Relation Evolvement

Jiayi Lin (The University of Hong Kong), Qingyu Zhang (The University of Hong Kong), Junzhe Li (The University of Hong Kong), Chenxin Sun (The University of Hong Kong), Hao Zhou (The Hong Kong Polytechnic University), Changhua Luo (The University of Hong Kong), Chenxiong Qian (The University of Hong Kong)

TWINFUZZ: Differential Testing of Video Hardware Acceleration Stacks

Matteo Leonelli (CISPA Helmholtz Center for Information Security), Addison Crump (CISPA Helmholtz Center for Information Security), Meng Wang (CISPA Helmholtz Center for Information Security), Florian Bauckholt (CISPA Helmholtz Center for Information Security), Keno Hassler (CISPA Helmholtz Center for Information Security)

Information Security), Ali Abbasi (CISPA Helmholtz Center for Information Security), Thorsten Holz (CISPA Helmholtz Center for Information Security)

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CENSOR: Defense Against Gradient Inversion via Orthogonal Subspace Bayesian Sampling

Kaiyuan Zhang (Purdue University), Siyuan Cheng (Purdue University), Guangyu Shen (Purdue University), Bruno Ribeiro (Purdue University), Shengwei An (Purdue University), Pin-Yu Chen (IBM Research AI), Xiangyu Zhang (Purdue University), Ninghui Li (Purdue University)

Do We Really Need to Design New Byzantine-robust Aggregation Rules?

Minghong Fang (University of Louisville), Seyedsina Nabavirazavi (Florida International University), Zhuqing Liu (University of North Texas), Wei Sun (Wichita State University), Sundararaja Iyengar (Florida International University), Haibo Yang (Rochester Institute of Technology)

Scale-MIA: A Scalable Model Inversion Attack against Secure Federated Learning via Latent Space Reconstruction

Shanghai Shi (Virginia Tech), Ning Wang (University of South Florida), Yang Xiao (University of Kentucky), Chaoyu Zhang (Virginia Tech), Yi Shi (Virginia Tech), Y. Thomas Hou (Virginia Polytechnic Institute and State University), Wenjing Lou (Virginia Polytechnic Institute and State University)

Privacy-Preserving Data Deduplication for Enhancing Federated Learning of Language Models

Aydin Abadi (Newcastle University), Vishnu Asutosh Dasu (Pennsylvania State University), Sumanta Sarkar (University of Warwick)

MingledPie: A Cluster Mingling Approach for Mitigating Preference Profiling in CFL

Cheng Zhang (Hunan University), Yang Xu (Hunan University), Jianghao Tan (Hunan University), Jiajie An (Hunan University), Wenqiang Jin (Hunan University)

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Shang Ma (University of Notre Dame), Chaoran Chen (University of Notre Dame), Shao Yang (Case Western Reserve University), Shifu Hou (University of Notre Dame), Toby Jia-Jun Li (University of Notre Dame), Xusheng Xiao (Arizona State University), Tao Xie (Peking University), Yanfang Ye (University of Notre Dame)

Revisiting Concept Drift in Windows Malware Detection: Adaptation to Real Drifted Malware with Minimal Samples

Adrian Shuai Li (Purdue University), Arun Iyengar (Intelligent Data Management and Analytics, LLC), Ashish Kundu (Cisco Research), Elisa Bertino (Purdue University)

PBP: Post-training Backdoor Purification for Malware Classifiers

Dung Thuy Nguyen (Vanderbilt University), Ngoc N. Tran (Vanderbilt University), Taylor T. Johnson (Vanderbilt University), Kevin Leach (Vanderbilt University)

Density Boosts Everything: A One-stop Strategy for Improving Performance, Robustness, and Sustainability of Malware Detectors

Jianwen Tian (Academy of Military Sciences), Wei Kong (Zhejiang Sci-Tech University), Debin Gao (Singapore Management University), Tong Wang (Academy of Military Sciences), Taotao Gu (Academy of Military Sciences), Kefan Qiu (Beijing Institute of Technology), Zhi Wang (Nankai University), Xiaohui Kuang (Academy of Military Sciences)

Automated Mass Malware Factory: The Convergence of Piggybacking and Adversarial Example in Android Malicious Software Generation

Heng Li (Huazhong University of Science and Technology), Zhiyuan Yao (Huazhong University of Science and Technology), Bang Wu (Huazhong University of Science and Technology), Cuiying Gao (Huazhong University of Science and Technology), Teng Xu (Huazhong University of Science and Technology), Wei Yuan (Huazhong University of Science and Technology), Xiapu Luo (The Hong Kong Polytechnic University)

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Black-box Membership Inference Attacks against Fine-tuned Diffusion Models

Yan Pang (University of Virginia), Tianhao Wang (University of Virginia)

Diffence: Fencing Membership Privacy With Diffusion Models

Yuefeng Peng (University of Massachusetts Amherst), Ali Naseh (University of Massachusetts Amherst), Amir Houmansadr (University of Massachusetts Amherst)

A Method to Facilitate Membership Inference Attacks in Deep Learning Models

Zitao Chen (University of British Columbia), Karthik Pattabiraman (University of British Columbia)

SIGuard: Guarding Secure Inference with Post Data Privacy

Xinqian Wang (RMIT University), Xiaoning Liu (RMIT University), Shangqi Lai (CSIRO Data61), Xun Yi (RMIT University), Xingliang Yuan (University of Melbourne)

Defending Against Membership Inference Attacks on Iteratively Pruned Deep Neural Networks

Jing Shang (Beijing Jiaotong University), Jian Wang (Beijing Jiaotong University), Kailun Wang (Beijing Jiaotong University), Jiqiang Liu (Beijing Jiaotong)

University), Nan Jiang (Beijing University of Technology), Md Armanuzzaman (Northeastern University), Ziming Zhao (Northeastern University)

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Rui Zeng (Zhejiang University), Xi Chen (Zhejiang University), Yuwen Pu (Zhejiang University), Xuhong Zhang (Zhejiang University), Tianyu Du (Zhejiang University), Shouling Ji (Zhejiang University)

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Yansong Gao (The University of Western Australia), Huaibing Peng (Nanjing University of Science and Technology), Hua Ma (CSIRO's Data61), Zhi Zhang (The University of Western Australia), Shuo Wang (Shanghai Jiao Tong University), Rayne Holland (CSIRO's Data61), Anmin Fu (Nanjing University of Science and Technology), Minhui Xue (CSIRO's Data61), Derek Abbott (The University of Adelaide, Australia)

LADDER: Multi-Objective Backdoor Attack via Evolutionary Algorithm

Dazhuang Liu (Delft University of Technology), Yanqi Qiao (Delft University of Technology), Rui Wang (Delft University of Technology), Kaitai Liang (Delft University of Technology), Georgios Smaragdakis (Delft University of Technology)

DShield: Defending against Backdoor Attacks on Graph Neural Networks via Discrepancy Learning

Hao Yu (National University of Defense Technology), Chuan Ma (Chongqing University), Xinhang Wan (National University of Defense Technology), Jun Wang (National University of Defense Technology), Tao Xiang (Chongqing University), Meng Shen (Beijing Institute of Technology, Beijing, China), Xinwang Liu (National University of Defense Technology)

BARBIE: Robust Backdoor Detection Based on Latent Separability

Hanlei Zhang (Zhejiang University), Yijie Bai (Zhejiang University), Yanjiao Chen (Zhejiang University), Zhongming Ma (Zhejiang University), Wenyan Xu (Zhejiang University)

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Welcome to Jurassic Park: A Comprehensive Study of Security Risks in Deno and its Ecosystem

Abdullah AlHamdan (CISPA Helmholtz Center for Information Security), Cristian-Alexandru Staicu (CISPA Helmholtz Center for Information Security)

NodeMedic-FINE: Automatic Detection and Exploit Synthesis for Node.js Vulnerabilities

Darion Cassel (Carnegie Mellon University), Nuno Sabino (IST & CMU), Min-Chien Hsu (Carnegie Mellon University), Ruben Martins (Carnegie Mellon University), Limin Jia (Carnegie Mellon University)

DUMPLING: Fine-grained Differential JavaScript Engine Fuzzing

Liam Wachter (EPFL), Julian Gremminger (EPFL), Christian Wressnegger (Karlsruhe Institute of Technology (KIT)), Mathias Payer (EPFL), Flavio Toffalini (EPFL)

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The Midas Touch: Triggering the Capability of LLMs for RM-API Misuse Detection

Yi Yang (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Jinghua Liu (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Kai Chen (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Miaoqian Lin (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China)

Generating API Parameter Security Rules with LLM for API Misuse Detection

Jinghua Liu (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Yi Yang (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Kai Chen (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Miaoqian Lin (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China)

Uncovering the iceberg from the tip: Generating API Specifications for Bug Detection via Specification Propagation Analysis

Miaoqian Lin (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Kai Chen (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Yi Yang (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China), Jinghua Liu (Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China; School of Cyber Security, University of Chinese Academy of Sciences, China)

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RadSee: See Your Handwriting Through Walls Using FMCW Radar

Shichen Zhang (Michigan State University), Qijun Wang (Michigan State University), Maolin Gan (Michigan State University), Zhichao Cao (Michigan State University), Huacheng Zeng (Michigan State University)

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On Borrowed Time – Preventing Static Side-Channel Analysis

Robert Dumitru (Ruhr University Bochum and The University of Adelaide), Thorben Moos (UCLouvain), Andrew Wabnitz (Defence Science and Technology Group), Yuval Yarom (Ruhr University Bochum)

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Nicolas Badoux (EPFL), Flavio Toffalini (Ruhr-Universität Bochum, EPFL), Yuseok Jeon (UNIST), Mathias Payer (EPFL)

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Ruishi Li (National University of Singapore), Bo Wang (National University of Singapore), Tianyu Li (National University of Singapore), Prateek Saxena (National University of Singapore), Ashish Kundu (Cisco Research)

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Shangzhi Xu (The University of New South Wales), Jialiang Dong (The University of New South Wales), Weiting Cai (Delft University of Technology), Juanru Li (Feiyu Tech), Arash Shaghghi (The University of New South Wales), Nan Sun (The University of New South Wales), Siqi Ma (The University of New South Wales)

CASPR: Context-Aware Security Policy Recommendation

Lifang Xiao (Institute of Information Engineering, Chinese Academy of Sciences), Hanyu Wang (Institute of Information Engineering, Chinese Academy of Sciences), Aimin Yu (Institute of Information Engineering, Chinese Academy of Sciences), Lixin Zhao (Institute of Information Engineering, Chinese Academy of

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JBomAudit: Assessing the Landscape, Compliance, and Security Implications of Java SBOMs

Yue Xiao (IBM Research), Dhilung Kirat (IBM Research), Douglas Lee Schales (IBM Research), Jiyong Jang (IBM Research), Luyi Xing (Indiana University Bloomington), Xiaojing Liao (Indiana University)

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Dongwei Xiao (The Hong Kong University of Science and Technology), Zhibo Liu (The Hong Kong University of Science and Technology), Yiteng Peng (The Hong Kong University of Science and Technology), Shuai Wang (The Hong Kong University of Science and Technology)

SHAFT: Secure, Handy, Accurate and Fast Transformer Inference

Andes Y. L. Kei (Chinese University of Hong Kong), Sherman S. M. Chow (Chinese University of Hong Kong)

Siniel: Distributed Privacy-Preserving zkSNARK

Yunbo Yang (The State Key Laboratory of Blockchain and Data Security, Zhejiang University), Yuejia Cheng (Shanghai DeCareer Consulting Co., Ltd), Kailun Wang (Beijing Jiaotong University), Xiaoguo Li (College of Computer Science, Chongqing University), Jianfei Sun (School of Computing and Information Systems, Singapore Management University), Jiachen Shen (Shanghai Key Laboratory of Trustworthy Computing, East China Normal University), Xiaolei Dong (Shanghai Key Laboratory of Trustworthy Computing, East China Normal University), Zhenfu Cao (Shanghai Key Laboratory of Trustworthy Computing, East China Normal University), Guomin Yang (School of Computing and Information Systems, Singapore Management University), Robert H. Deng (School of Computing and Information Systems, Singapore Management University)

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Yunpeng Tian (Huazhong University of Science and Technology), Feng Dong (Huazhong University of Science and Technology), Haoyi Liu (Huazhong University of Science and Technology), Meng Xu (University of Waterloo), Zhiniang Peng (Huazhong University of Science and Technology; Sangfor Technologies Inc.), Zesen Ye (Sangfor Technologies Inc.), Shenghui Li (Huazhong University of Science and Technology), Xiapu Luo (The Hong Kong Polytechnic University), Haoyu Wang (Huazhong University of Science and Technology)

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Jie Lin (University of Central Florida), David Mohaisen (University of Central Florida)

Sheep's Clothing, Wolf's Data: Detecting Server-Induced Client Vulnerabilities in Windows Remote IPC

Fangming Gu (Institute of Information Engineering, Chinese Academy of Sciences), Qingli Guo (Institute of Information Engineering, Chinese Academy of Sciences), Jie Lu (Institute of Computing Technology, Chinese Academy of Sciences), Qinghe Xie (Institute of Information Engineering, Chinese Academy of Sciences), Beibei Zhao (Institute of Information Engineering, Chinese Academy of Sciences), Kangjie Lu (University of Minnesota), Hong Li (Institute of information engineering, Chinese Academy of Sciences), Xiaorui Gong (Institute of information engineering, Chinese Academy of Sciences)

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Takami Sato (University of California, Irvine), Ryo Suzuki (Keio University), Yuki Hayakawa (Keio University), Kazuma Ikeda (Keio University), Ozora Sako (Keio University), Rokuto Nagata (Keio University), Ryo Yoshida (Keio University), Qi Alfred Chen (University of California, Irvine), Kentaro Yoshioka (Keio University)

Revisiting Physical-World Adversarial Attack on Traffic Sign Recognition: A Commercial Systems Perspective

Ningfei Wang (University of California, Irvine), Shaoyuan Xie (University of California, Irvine), Takami Sato (University of California, Irvine), Yunpeng Luo (University of California, Irvine), Kaidi Xu (Drexel University), Qi Alfred Chen (University of California, Irvine)

L-HAWK: A Controllable Physical Adversarial Patch Against a Long-Distance Target

Taifeng Liu (Xidian University), Yang Liu (Xidian University), Zhuo Ma (Xidian University), Tong Yang (Peking University), Xinjing Liu (Xidian University), Teng Li (Xidian University), Jianfeng Ma (Xidian University)

Message from the General Chairs

Welcome to the 2025 Network and Distributed System Security (NDSS) Symposium!

This year, the organizing and technical program committees have put together an exceptional program featuring 211 papers, two distinguished keynotes—Johanna Sepúlveda, Senior Expert and Technical Domain Manager for Quantum and Quantum-Secure Technologies at Airbus Defence and Space, and Kathleen Fisher, Director of DARPA/I2O—along with a poster session showcasing 37 posters and eight co-hosted events.

A program of this scale would not be possible without the dedication of numerous volunteers, and we extend our deepest gratitude to them.

First, we thank our Technical Program Committee Co-Chairs, Christina Pöpper and Hamed Okhravi, for curating an outstanding technical program. NDSS 2025 had two submission cycles, and we appreciate the program committee members and external reviewers for their meticulous work in reviewing submissions, guiding authors through revisions, and selecting the best papers for presentation.

Second, we are grateful to Daniele Cono D'Elia and Mathy Vanhoef for leading the artifact evaluation initiative, which evaluated 63 artifacts. We also extend a huge thanks to Mridula Singh and Hyungsub Kim, our publications chairs, for ensuring the collection and timely publication of camera-ready papers.

Additionally, we appreciate Jelena Mirkovic and Sébastien Bardin for organizing an impressive set of co-located events this year, including:

1. Security and Privacy of Next-Generation Networks (FutureG)
2. Security and Privacy in Standardized IoT (SDIoTSec)
3. Security of Space and Satellite Systems (SpaceSec)
4. Usable Security and Privacy (USEC)
5. SOC Operations and Construction (WOSOC)
6. Binary Analysis Research (BAR)
7. Innovation in Metadata Privacy: Analysis and Construction Techniques (IMPACT)
8. Measurements, Attacks, and Defenses for the Web (MADWeb)

We also extend our thanks to Tianshi Li and Kaushal Kafle for coordinating a fantastic poster session, and for organizing the Best Poster Awards. Special appreciation goes to Tingting Chen and her team for reviewing student fellowship applications—this year, 31 students received NDSS fellowships and travel support.

Further thanks to Yue Xiao, our publicity chair, and Tom Hutton, our local arrangements chair. We also acknowledge the NDSS Steering Group led by Yongdae Kim for their guidance and active participation in making this symposium a success.

Acknowledging Our Sponsors

NDSS is made possible through the generous support of our sponsors. We extend our gratitude to:

Gold Sponsor TikTok; Coffee Break Sponsor Google; Silver Sponsors Ant Group, Amazon Science, FutureWei Technologies, and Palo Alto Networks; and our lanyard sponsor Qualcomm. Palo Alto Networks also sponsored a Best Paper award for the MADWeb workshop.

We also thank our sponsorship coordinators—Yongdae Kim, Heng Yin, and Mauro Conti—for their efforts in helping identify potential sponsors around the globe.

Thank You to ISOC & AMS

NDSS would not happen without the invaluable support of the ISOC team—Raquel Kroich, Sally Harvey, Robin Wilton, Robbie Mitchell, and Ivana Trbovic. We sincerely appreciate the Internet Society’s continued support of NDSS, as well as the Association Management Solutions (AMS) staff for their ongoing efforts in managing this event.

And Finally, Thank You!

Most importantly, thank you to all of you—our participants! NDSS exists because of your contributions. Whether you are submitting and presenting papers and posters, attending sessions, or engaging in discussions, your participation strengthens our community in network and distributed system security.

We hope you enjoy NDSS 2025!

David Balenson and Heng Yin
General Chairs, NDSS 2025

Message from the Program Committee Co-Chairs

We are delighted to present the technical program of the 2025 Network and Distributed System Security (NDSS) symposium, held as an in-person event between February 24 and 28, 2025. Now in its 33rd edition and hosted by the Internet Society (ISOC) from the start, NDSS has established itself as a top-tier academic conference focused on cybersecurity research, particularly in network and system security. NDSS emphasizes practical and impactful security solutions for research and practice, making it highly relevant to both academia and industry.

The field of cybersecurity is experiencing rapid growth and transformation. This year, a total of 1311 submissions entered the peer review process over two submission cycles (this does not count papers that clearly violated the submission guidelines or were judged as out of scope by a PC subcommittee). The submissions were evaluated on the basis of their technical quality, novelty, and significance. Two rounds of reviewing (and in some cases additional reviews) in each cycle and additional assessments by the newly established Ethics Review Board (if applicable) were conducted. Papers with two clearly negative reviews were early rejected after the first round, the others advanced to the second round for another set of reviews. More than 83% of the 544 papers entering the second review round received a total of four reviews (or more), the others three reviews. We strove to make the review process competitive but constructive and insightful for the authors, including a rebuttal and interactive discussion phase. Program Committee (PC) members were regularly reminded to identify positive points in the submission and provide concrete suggestions to improve each paper; 103 papers were accepted after major revisions. At the end of the review process and after intense online discussions, 211 papers (16.1% acceptance rate) were selected to appear in the program. 68 of the accepted papers additionally submitted their artifacts for review of the Artifact Evaluation committee, 63 of which were evaluated in their entirety. Navigating the use of Generative AI and enforcing integrity and review ethics throughout the review process were two aspects where we devoted particular attention.

We would like to extend our sincere thanks to the PC members and external reviewers. The task of the PC members was substantial as we asked them to contribute significant time and effort in the expert selection of papers. 167 experts accepted our invitation to join the NDSS '25 Technical Program Committee, 119 of whom participated in both review cycles. The PC members wrote up to 10 reviews in the Summer Cycle and up to 18 reviews in the Fall cycle. In addition, they participated in the online PC discussion, in the interactive discussion phase with the authors, and many served as shepherds for minor revisions or discussion leads for major revisions (where the revisions were reassessed by all reviewers). We would like to express our sincere gratitude to them - without their service NDSS would not be possible. We also extend our thanks to the members of the Artifact Evaluation Committee who each assessed three or more artifacts.

Organizing a conference as large as NDSS is a substantial endeavor, and we would like to extend our sincere thanks to everyone who contributed their time and effort. We would like to specifically name a few individuals who made particular contributions to NDSS 2025. David Balenson served as Chair of the Organization Committee and was an invaluable

source of information and institutional knowledge, guiding us with his expertise. Steering Committee Chair Yongdae Kim provided strategic oversight and worked closely with us on key decisions and navigating complex cases where additional insight was needed—our sincere thanks to him and the entire Steering Committee. Robin Wilton played a pivotal role as a bridge between the Program Co-Chairs, the Organizing Committee, and ISOC and was crucial to ensuring that every moving part stayed in sync—all while infusing the process with enthusiasm. From ISOC, Joseph Hall offered valuable support, and Ivana Trbovic did an excellent job regarding website management. Artifact Evaluation Co-Chairs Daniele Cono D’Elia and Mathy Vanhoef ran the artifact evaluation process with exceptional diligence, reinforcing its role as a cornerstone of rigorous research and marking the second time NDSS has embraced this initiative. Mridula Singh and Hyungsub Kim expertly managed the intricate details of proceedings production. It has been an honor to work with all of you!

Finally, we thank all authors who submitted to NDSS 2025 and all attendees who are joining us in person—without you, NDSS would not be possible. We also thank the selected presenters joining us online; we are sorry you could not make it in person for reasons beyond your control.

We hope you will enjoy the new location in San Diego and are accepting a few possible relocation hiccups. Enjoy the conference!

Christina Pöpper and Hamed Okhravi
Program Committee Co-Chairs, NDSS 2025

Message from the Internet Society

The Internet Society is once again proud to host the Network and Distributed System Security (NDSS) Symposium in 2025, continuing our decades-long commitment to NDSS. The Symposium remains in the top four global security conferences, which is a testament to the impact of your research both in academia and industry.

The Internet Society's mission of an open, globally-connected, secure and trustworthy Internet depends on the work you do here. Our work is enabled and supported by the research you carry out, the leaders you develop, and the breakthroughs you achieve. Through your efforts and NDSS' open publication policy, the state of the art in network and distributed systems security is advanced, world wide. Thank you.

In 2025, NDSS continues to set new records. Paper submissions doubled (again!), from 700 to 1372, and by expanding NDSS from three tracks to four, for the first time, we have been able to accommodate 211 accepted papers: an increase of one third over 2024. With an acceptance rate of just over 15%, that meant competition to present papers at NDSS 2025 was extremely tough: congratulations to the successful teams.

Those record numbers have, of course, meant a sharp increase in workload for the huge number of volunteers from the community who put together this high-quality program. The Program Committee alone, this year, consisted of almost 170 volunteers, peer reviewing and scoring the record number of submissions.

We are grateful for the hard work undertaken by General Co-Chairs David Balenson and Heng Yin, Program Committee Co-Chairs Christina Pöpper and Hamed Okhravi, and the Organizing and Program Committee members who have invested countless hours to review papers and posters, evaluate research artifacts, publish the proceedings, organize co-located sessions, and improve the NDSS student support program.

As ever, the Program Committee has lined up two world-class keynote speakers, in Dr Johanna Sepúlveda (Airbus Defence and Space) and Dr Kathleen Fisher (DARPA), who will share their insights on cutting-edge technologies in a turbulent geo-political environment.

Finally, I am profoundly grateful to the sponsors without whom this event would not be possible. This includes our Gold Sponsor TikTok; Coffee Break Sponsor Google; Silver Sponsors Ant Group, Amazon Science, FutureWei Technologies, and Palo Alto Networks; and our lanyard sponsor Qualcomm. Palo Alto Networks have also sponsored a Best Paper award for the MADWeb workshop.

On behalf of the Internet Society, I welcome you to the busiest ever NDSS. The opportunities to learn, network, and develop are almost limitless: I hope you find time to have some fun too!

Sally Wentworth
President and CEO, Internet Society

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