# SHU WANG

#### **BIOGRAPHY**

I am a third-year I.T. Ph.D. student in the Volgenau School of Engineering at George Mason University, under the supervision of Dr. Kun Sun. Before that, I obtained my Bachelor of Engineering in Communication Engineering in 2014 and Master of Engineering in Signal and Information Processing in 2017 from Nanjing University of Posts and Telecommunications. I also works as a graduate research assistant at Center for Secure Information Systems (CSIS). My research interests include Information Security, Adversarial Learning, Machine Learning, Pattern Recognition, Data Mining, Deep Learning, Signal Processing, Image Understanding, and Embedded Systems.

# **EDUCATION**

# Doctor of Philosophy in Information Technology

August 2018 - Present

with Concentration in Information Science and Technology.

George Mason University, GPA: 4.0/4.0.

# Master of Science in Signal and Information Processing

September 2014 - May 2017

with Concentration in Image Processing and Multimedia Communications. Nanjing University of Posts and Telecommunications, GPA: 90.2/100.

# Bachelor of Science in Electrical Engineering

September 2010 - June 2014

with Specialization in Communication Engineering.

Nanjing University of Posts and Telecommunications, GPA: 90.9/100.

#### ACADEMIC POSITIONS

#### Graduate Research Assistant

August 2018 - Present

Center for Secure Information Systems (CSIS) George Mason University, Fairfax, VA, USA.

Research Assistant

July 2015 - May 2017

Key Lab on Image Processing and Image Communications

Nanjing University of Posts and Telecommunications, Nanjing, China.

Teaching Assistant September 2014 - June 2015

Graduate Level Course: Digital Image Processing

Nanjing University of Posts and Telecommunications, Nanjing, China.

### **PUBLICATIONS**

Xinda Wang, **Shu Wang**, Pengbin Feng, Kun Sun, and Sushil Jajodia, "PatchDB: A Large-Scale Security Patch Dataset," 2021 51st IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2021), Taipei, June 21-24, 2021.

Shu Wang, Jiahao Cao, Xu He, Kun Sun and Qi Li, "When the Differences in Frequency Domain are Compensated: Understanding and Defeating Modulated Replay Attacks on Automatic Speech Recognition," 2020 27th ACM Conference on Computer and Communications Security (CCS 2020), Orlando, USA, November 9-13, 2020.

Shu Wang, Jiahao Cao, Kun Sun and Qi Li, "SIEVE: Secure In-Vehicle Automatic Speech Recognition Systems," 2020 23rd International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2020), Donostia/San Sebastian, Spain, October 14-16, 2020.

Xinda Wang, Shu Wang, Kun Sun, Archer Batcheller and Sushil Jajodia, "A Machine Learning Approach to Classify Security Patches into Vulnerability Types," 2020 8th IEEE Conference on Communications and Network Security (CNS 2020), Avignon, France, 2020, pp. 1-9. DOI: 10.1109/CNS48642.2020.9162237.

Shu Wang, Feng Liu, Zongliang Gan and Ziguan Cui, "Vehicle type classification via adaptive feature clustering for traffic surveillance video," 2016 8th International Conference on Wireless Communications & Signal Processing (WCSP 2016), Yangzhou, 2016, pp. 1-5. DOI: 10.1109/WCSP.2016.7752672.

## **SERVICE**

Web chair: CNS 2021.

 ${\bf Conference \ sub-reviewer:} \ \ CCS \ 2021/2019, \ INFOCOM \ 2021/2020/2019, \ ICC \ 2021/2019, \ SECRYPT \ 2021, \ ICC \ 2021/2019, \ SECRYPT \ 2021, \ ICC \ 2021/2019, \ ICC \$ 

NDSS 2020, ACSAC 2020, DNS 2020, ICICS 2020/2019, CNS 2020/2019, SciSec 2019, ICDCS 2019.

Journal sub-reviewer: GPAA 2019.

Artifacts student reviewer: ACSAC 2020.

## AWARDS AND SCHOLARSHIPS

ACM CCS 2020 Student Conference Grant (2020)

Machine Learning Certificate by Stanford University on Coursera (2016)

Honorable Mention, National Mathematical Contest in Modeling (2016)

Honor Graduates of Nanjing University of Posts and Telecommunications (2014)

National Scholarship for Outstanding Undergraduates (2013)

Merit-based Top Scholarship (2011-2016)