Yixin **Wu**

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Education

Sichuan University   *Sichuan, China*

B.S. in Cyberspace security   *Sept. 2017 - June. 2021*

- GPA: 3.84, 3.88(major) Rank: 1/126
- Average Grade: 90.28, 90.65 (major)

National University of Singapore   *Singapore*

NUS SOC Summer Workshop   *July. 2019 - Aug. 2019*

- Advisor: Prof. Hugh Anderson
- Performance: A+
- Outstanding Achievement in Curriculum Project

Publications

[SCN'19] Yixin Wu, Yuqiang Sun, Cheng Huang, Peng Jia, Luping Liu. "Session-based Webshell Detection using Machine Learning in Web Logs." Security and Communication Networks (SCN), 2019.

[COSE'20] Yixin Wu, Cheng Huang, Xing Zhang, Hongyi Zhou. "Automatic Attack Actor TTP Profile Extraction and Group Cluster in Internet of Things" Submitted to Computers & Security (COSE), 2020.

Research Experience

Automatic Attack Actor TTP Profile Extraction and Group Cluster in Internet of Things   *Sichuan University, Sichuan, China*

Research Assistant to Dr. Cheng Huang   *Sep. 2019 - Feb. 2020*

- Utilize 4 feature sets to characterize different behaviors of attack actors on IoT devices.
- Extract TTP profiles by mapping payloads to the ATT&CK framework based on features.
- Employ the k-means clustering algorithm to cluster attack actors into several groups and generate attack trees to materialize attack behaviors for groups.

Session-based Webshell Detection using Machine Learning in Web Logs   *Sichuan University, Sichuan, China*

Research Assistant to Dr. Cheng Huang   *Sept. 2018 - Apr. 2019*

- Identify sessions by leveraging statistical analysis based on the threshold.
- Compare the performance of HMM and LSTM on building a session-based model for webshell detection.
- Compare the runtime of the session-based model and previous works.

Honors & Awards

2019	**Second Prize of the 12th National College Student Information Security Competition (CTF)**	*Beijing, China*
2019	**Meritorious Winner in Interdisciplinary Contest in Modeling**	*COMAP, USA*
2019	**China National Scholarship (top 1% of 126 students)**	*Beijing, China*
2019	**Tang Lixin Scholarship**	*Sichuan, China*
2019	**First Prize of Academic Scholarship of Sichuan University**	*Sichuan, China*
2019	**School Outstanding Student**	*Sichuan, China*

Intern Experience

Alibaba Group   *Hangzhou, Zhejiang, China*

Security Algorithm Engineer   *Jul. 2020 - Oct. 2020*

Skills

Tools	Tensorflow, Keras, scikit-learn, Pandas, NumPy
Programming	C, Python, JAVA, C++, Node.js, LaTeX