

Research interests

My primary research area is AI applications in cybersecurity, particularly Android security using machine learning.

Employment

Assistant Professor

School of Mathematical & Computer Sciences

Heriot-Watt University

2 Jan 2024 → present

PGR

School of Mathematical & Computer Sciences

Heriot-Watt University

1 May 2019 → present

Research outputs

Android Malware Detection Using Control Flow Graphs and Text Analysis

Muzaffar, A., Riaz, A. H. & Hassen, H. R., 8 Sept 2023, *Proceedings of the International Conference on Applied Cybersecurity (ACS) 2023*. Zantout, H. & Ragab Hassen, H. (eds.). Springer, p. 10-20 11 p. (Lecture Notes in Networks and Systems; vol. 760).

DroidDissector: A Static and Dynamic Analysis Tool for Android Malware Detection

Muzaffar, A., Ragab Hassan, H., Zantout, H. & Lones, M. A., 8 Sept 2023, *Proceedings of the International Conference on Applied CyberSecurity (ACS) 2023*. Zantout, H. & Ragab Hassen, H. (eds.). Springer, p. 3-9 7 p. (Lecture Notes in Networks and Systems; vol. 760).

An In-Depth Review of Machine Learning Based Android Malware Detection

Muzaffar, A., Ragab Hassan, H., Lones, M. A. & Zantout, H., Oct 2022, In: *Computers and Security*. 121, 102833.

Android Malware Detection Using API Calls: A Comparison of Feature Selection and Machine Learning Models

Muzaffar, A., Ragab Hassan, H., Lones, M. A. & Zantout, H., 2 Feb 2022, *Proceedings of the International Conference on Applied CyberSecurity (ACS) 2021*. Ragab Hassen, H. & Batatia, H. (eds.). Springer, p. 3-12 10 p. (Lecture Notes in Networks and Systems; vol. 378).

Datasets

Android dataset for malware detection

Muzaffar, A. (Creator), Ragab Hassan, H. (Contributor), Lones, M. A. (Contributor) & Zantout, H. (Contributor), Heriot-Watt University, 2024

<https://www.dropbox.com/scl/fo/js2kra4l7yang2bd1a3a9/AEAL0Y1s94xgqWJ6M4ZI9S4?rlkey=4qaj9uohg3hz5bzxhsaq5tt0x&dl=0>