Tina Wu

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SKILLS

- Certifications: GIAC Certified Forensic Analyst (GCFA) 2014-2018.
- Programming Languages: Proficient in Matlab, R, TeX and also basic ability with Python and machine learning (Scikit-learn).
- General Business Skills: Good presentation skills and works well in a team.
- Other: Can write well organised and structured technical reports and research papers.

EDUCATION

UNIVERSITY OF OXFORD Oxford, UK PhD in Cyber Security Oct 2014 - Sep 2020

Thesis: Digital Forensic Investigation of IoT Devices: Tools and Methods

UNIVERSITY OF DERBY Derby, UK

Nov 2010 - Nov 2011 MSc in Computer Security and Forensics (Merit)

NOTTINGHAM TRENT UNIVERSITY

Nottingham, UK BSc in Forensic Science (2.1) Jul 2007 - July 2010

EXPERIENCE

OFGEM Cardiff, UK

Cyber Security Researcher

Apr 2021 - Present Work closely with academia and Ofgem's energy operators in researching cyber security issues.

• Using agile project methodologies to work on real-world research problems.

UNIVERSITY OF PLYMOUTH

Plymouth, UK

Industrial Research Fellow in Penetration Testing October 2020 - May 2021 • Working on the Cyber-SHIP project and penetration testing maritime technology, including radars, voyage data recorders

(VDR), Electronic Chart Display and Information Systems (ECDIS), Automatic Identification Systems (AIS), and communications devices.

• Write research reports and presentations to external parties.

AIRBUS GROUP

Newport, UK

Research Engineer in Cyber Security/Forensics

Oct 2012 - Oct 2014

- Build relationships with academia and Airbus Group business units.
- Manage various research projects related to SCADA/CNI cyber security, forensics, penetration testing, and malware analysis.
- Manage interns and supervision of PhD and MSc student's workload and assigning research tasks.

HUMBERSIDE POLICE HI-TECH CRIME UNIT

Digital Forensic Volunteer

Hull, UK

May 2012 - Aug 2012

This role involved using different forensic software to analyse various media devices.

PUBLICATIONS

- Wu, T., Breitinger, F., Niemann, S. (2021). IoT network traffic analysis: opportunities and challenges for forensic investigators. Accepted for publication at the Digital Forensic Research Workshop (DFRWS) APAC 2020 and will be published on September 2020.[Conference]
- Wu, T., Breitinger, F., O'Shaughnessy, S. (2020). Digital Forensic Tools: recent advances and enhancing the status quo. Accepted at Forensic Science International: Digital Investigation (FSIDI) Volume 34, 2020, 300999, ISSN 2666-2817, [Journal]
- Wu, T., Breitinger, F., Baggili, I. (2019). IoT Ignorance is Digital Forensics Research Bliss: A Survey to Understand IoT Forensics Definitions, Challenges and Future Research Directions. In Proceedings of the 14th International Conference on Availability, Reliability, and Security (ARES '19). Association for Computing Machinery, New York, NY, USA, Article 46, 1–15. [Conference]
- Wu, T., Martin, A. (2018). Bluetooth Low Energy Used for Memory Acquisition from Smart Health Care Devices, 2018 17th IEEE International Conference On Trust, Security And Privacy In Computing And Communications/ 12th IEEE International Conference On Big Data Science And Engineering (TrustCom/BigDataSE), 2018, pp. 1256–1261.[Conference]
- Wu, T., Nurse, J. (2015). Exploring The Use Of PLC Debugging Tools For Digital Forensic Investigations On SCADA Systems, Journal of Digital Forensics, Security and Law: Vol. 10: No. 4, Article 7. [Conference]
- Wu, T., Disso, J., Jones, K, Campos, A. (2013). Towards a SCADA Forensics Architecture, In Proceedings of the 1st International Symposium on ICS SCADA Cyber Security Research 2013 (ICS-CSR 2013). BCS, Swindon, GBR, 12-21. [Conference]

RESEARCH PROJECTS

• Cyber-SHIP Lab

University of Plymouth, 2020

I was the lead researcher in penetration maritime systems.

• WISE(Welsh Foundation Project))

Airbus Group, 2013

I was the lead researcher representing our team, collaborating with both Cardiff University and University of South Wales. I was tasked to carry out research in the use of Security Incident Event Management (SIEM) system for critical infrastructures.

• European COntrol System Security Incident Analysis Network (ECOSSIAN) FP7 EU Project

Airbus Group, 2013

I was lead researcher for Airbus UK in this project collaborating with over 20 companies across the EU. My main role was to research and implement Intrusion Detection Systems(IDS) for critical infrastructures.