

# TAO WANG

Assistant Professor

Department of Computer Science and Engineering

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## RESEARCH INTERESTS

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- Security and privacy
- Anonymity networks
- Network traffic analysis
- Machine learning

## EDUCATION

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DEC. 2015 Ph. D. in COMPUTER SCIENCE, **University of Waterloo**  
Thesis: "Website Fingerprinting: Attacks and Defenses" — Advisor: Prof. Ian Goldberg

JAN. 2012 Master of Mathematics in COMPUTER SCIENCE, **University of Waterloo**

SEP. 2010 B. Sc. in PURE MATHEMATICS, **Hong Kong University of Science and Technology**

## PUBLICATIONS

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### Published at HKUST

*Walkie-Talkie: An Efficient Defense Against Passive Website Fingerprinting Attacks*  
T Wang and I Goldberg  
26th USENIX Security Symposium, 2017

*On Realistically Attacking Tor with Website Fingerprinting*  
T Wang and I Goldberg  
Proceedings on Privacy Enhancing Technologies, 2016

### Published previously

*A Systematic Approach to Developing and Evaluating Website Fingerprinting Defenses*  
X Cai, R Nithyanand, T Wang, R Johnson and I Goldberg  
21st ACM Conference on Computer and Communications Security, 2014

*Effective Attacks and Provable Defenses against Website Fingerprinting*  
T Wang, X Cai, R Nithyanand, R Johnson and I Goldberg  
23rd USENIX Security Symposium, 2014

*Improved Website Fingerprinting on Tor*  
T Wang and I Goldberg  
12th ACM Workshop on Privacy in the Electronic Society, 2013

*Congestion-Aware Path Selection in Tor*  
T Wang, K Bauer, C Forero and I Goldberg  
16th International Conference on Financial Cryptography and Data Security, 2012

## Under review

*Optimizing Precision for Open-World Website Fingerprinting*  
T Wang  
Submitted to Networks and Distributed Systems Security, 2019

## RESEARCH STUDENTS

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Fei, QI	2017–present	PhD candidate (1st year)
Jiajun, GONG	2017–present	PhD candidate (1st year)
Yatyin, LEUNG	2016–present	MPhil (TLE) candidate (2nd year)

## PROJECTS AND GRANTS

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Project Title	<i>Defending against Privacy-Intrusive Traffic Analysis Attacks</i>
Project Type	HKRGC Early Career Scheme
Funding	\$383,333
Duration	1-1-2019 — 31-12-2020
Role	Principal Investigator

## PROFESSIONAL SERVICE

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2018–present	Reviewer Program committee for ACM CCS Workshop for Privacy in the Electronic Society
2016–2018	Reviewer Program committee for Privacy Enhancing Technologies Symposium
2015	Reviewer External reviewer for International Journal of Information Security External reviewer for Transactions on Dependable and Secure Computing

## UNIVERSITY SERVICE

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I served the department as an interviewer for the 2017 and 2018 Mainland recruitment JEE sessions. I also joined the 2016 PG Recruitment session, and will join the 2018 PG Recruitment session.