Shuai Hao

Postdoctoral Researcher
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Research

Networking and Security

Internet Measurement and Topology · Internet-Wide Vulnerability and Security · Routing System and Security · Domain Name System · Content Delivery Networks · DDoS Attack and Defense · Network Intrusion Detection System · Web Security and Privacy

Education

Ph.D. in Computer Science · 2011 - 2017
College of William and Mary .... Williamsburg, VA
Department of Computer Science · Advisor: Dr. Haining Wang
Ph.D. Thesis: **On the Impact of Internet Naming Evolution: Deployment, Performance, and Security Implications**

M.S. in Computer Science · 2007 - 2010
Beijing University of Posts and Telecommunications .... Beijing, China

B.Eng. in Computer Science · 2003 - 2007
North China Electric Power University .... Baoding, Hebei, China

Experience & Appointments

Postdoctoral Researcher,
**Center for Applied Internet Data Analysis (*CAIDA*),
University of California, San Diego (*UCSD*)** .... La Jolla, CA
Supervisors: Dr. Amogh Dhamdhere and Dr. Alberto Dainotti   2018.2 - present

Research Intern, **NEC Laboratories America** .... Princeton, NJ
Computer Security Department   2017.9 – 2018.1
Supervisor: Dr. Junghwan Rhee

Ph.D. Candidate, Research Assistant, Teaching Assistant,
College of William and Mary .... Williamsburg, VA
Department of Computer Science · Advisor: Dr. Haining Wang   2011 – 2017

- Visiting Ph.D. Student, **University of Delaware** .... Newark, DE
  Department of Electrical & Computer Engineering   2014 – 2017
  Advisor: Dr. Haining Wang

Research Intern, **HP Labs China** .... Beijing, China
Networking and Communications Lab   Summer 2012

Visiting Research Student, **Tsinghua University** .... Beijing, China
Department of Computer Science · Supervisor: Dr. Ke Xu   2010–2011

Publications

[USENIX Security'18] **Shuai Hao**, Yubao Zhang, Haining Wang, and Angelos Stavrou. **End Users Get Maneuvered: Empirical Analysis of Redirection Hijacking in Content Delivery Networks**, in *the 27th USENIX Security Symposium (**USENIX Security**)*, Baltimore, MD, August 2018. (Acceptance Rate: 100/524 = 19.1%)

[DSN'18] Lin Jin, **Shuai Hao**, Haining Wang, and Chase Cotton. **Your Remnant Tells Secret: Residual Resolution in DDoS Protection Services**, in *the 48th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)*, Luxembourg City, Luxembourg, June 2018. (Acceptance Rate: 62/232 = 26.7%)

[Access'18] Kun Xie, Xiaohong Huang, **Shuai Hao**, and Maode Ma. **Distributed Power Saving for Large-Scale Software-Defined Data Center Networks**, in *Journal of IEEE Access*, January 2018.

[INFOCOM'18] **Shuai Hao**[*], Haitao Xu[*], Alparslan Sari, and Haining Wang. **On the Privacy Implications of Email Tracking**, in *IEEE INFOCOM*, Honolulu, HI, April 2018. ([*]co-first authors; Acceptance Rate: 309/1606 = 19.2%)

[SIGCOMM-CCR'17] **Shuai Hao** and Haining Wang. **Exploring Domain Name Based Features on the Effectiveness of DNS Caching**, in *ACM SIGCOMM Computer Communication Review (CCR)*, Volume 47 Issue 1, January 2017.

[CCS'16] Daiping Liu, **Shuai Hao**, and Haining Wang. **All Your DNS Records Point to Us: Understanding the Security Threats of Dangling DNS Records**, in *the 23rd ACM Conference on Computer and Communications Security (CCS)*, Vienna, Austria, October 2016. (Acceptance Rate: 137/831 = 16.5%)

[Access'16] Kun Xie, Xiaohong Huang, **Shuai Hao**, Maode Ma, Pei Zhang, and Dingyuan Hu. **E^{3}MC: Improving Energy Efficiency via Elastic Multi-Controller SDN in Data Center Networks**, in *Journal of IEEE Access*, October 2016.

[ICNP'15] **Shuai Hao**, Haining Wang, Angelos Stavrou, and Evgenia Smirni. **On the DNS Deployment of Modern Web Services**, in *the 23rd IEEE International Conference on Network Protocols (ICNP)*, San Francisco, CA, November 2015. (Acceptance Rate: 38/190 = 20.0%; *Best Paper Nominee*)

Shuai Hao, Xiaohong Huang, and Yan Ma. **A Simple Packet Authentication Mechanism Based on Stateless Core Approach**, in *Workshop on Management of Emerging Networks and Services, IEEE Globecom*, Miami, FL, 2010.

Shuai Hao, Xiaohong Huang, and Yan Ma. **Application QoS for Video: Benchmarking, Control Strategies and Business Systems**, in *the 5th IEEE International Conference on Wireless Communications, Networking and Mobile Computing*, Beijing, China, 2009.

Professional Activities	*Conference/Journal Reviewer*
	IEEE/IFIP DSN '14 '15 '16 '17
	IEEE INFOCOM '14 '15 '16 '17 '18
	ACM CCS '17
	ACM IWSPA '17
	IEEE HASE '17
	SecureComm '15 '16
	SECRYPT '16
	IEEE Security & Privacy (Oakland) '15
	IEEE CNS '15 '18
	IEEE/ACM Transactions on Networking (ToN)
	ACM Transactions on Privacy and Security (Formerly TISSEC)
	IEEE Transactions on Information Forensics and Security (TIFS)
	Journal of Computer Communications (ComCom)

Journal of Communications and Networks (JCN)
Journal of Security and Communication Networks
IEEE Security & Privacy Magazine

Teaching Experience	*Teaching Assistant · Department of Computer Science · College of William and Mary*
	Spring 2013: CS243 - Discrete Structures
	Fall 2012: CS141 - Computational Problem Solving
	Spring 2012: CS423/523 - Finite Automata
	Fall 2011: CS141 - Computational Problem Solving

Talks and Presentations	Security Group Luncheon, CSE Department, UC San Diego . . . . April 2018
	Seminar Series Talk, ECE Department, University of Delaware . . . . September 2016
	Conference Talk, IEEE ICNP'15, San Francisco, CA . . . . November 2015