Frank Y. Wang

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Education

Massachusetts Institute of Technology   Sept 2012 - July 2018
Ph.D. in Computer Science
Advised by Prof. Nickolai Zeldovich and Prof. James Mickens
Thesis Title: Preventing Data Leakage in Web Services

Stanford University   Sept 2008 - June 2012
B.S. in Computer Science with Honors and Minor in Mathematics
Advised by Prof. Dan Boneh
Thesis Title: Offloading Critical Security Operations to the GPU

Publications

1. **Frank Wang**, Ronny Ko, and James Mickens. "Riverbed: Enforcing User-defined Privacy Constraints in Distributed Web Services." In *Proceedings of Networked Systems Design and Implementation (NSDI)* 2019.

2. **Frank Wang**, James Mickens, and Nickolai Zeldovich. "Veil: Private Browsing Semantics Without Browser-side Assistance." In *Proceedings of Network and Distributed System Security Symposium (NDSS)* 2018.

3. **Frank Wang**, Yuna Joung, and James Mickens. "Cobweb: Practical Remote Attestation using Contextual Graphs." In *Proceedings of Workshop on System Software for Trusted Execution (SysTEX)* 2017.

4. **Frank Wang**, Catherine Yun, Shafi Goldwasser, Vinod Vaikuntanathan, and Matei Zaharia. "Splinter: Practical Private Queries on Public Data." In *Proceedings of Networked Systems Design and Implementation (NSDI)* 2017.

5. **Frank Wang**, James Mickens, Nickolai Zeldovich, and Vinod Vaikuntanathan. "Sieve: Cryptographically Enforced Access Control for User Data in Untrusted Clouds." In *Proceedings of Networked Systems Design and Implementation (NSDI)* 2016.

6. Dan Boneh, Craig Gentry, Shai Halevi, **Frank Wang**, and David J. Wu. "Private database queries using Somewhat Homomorphic Encryption." *In Proceedings of Applied Cryptography and Network Security (ACNS)* 2013.

7. Zachary Weinberg, Jeffrey Wang, Vinod Yegneswaran, Linda Briesemeister, Steven Cheung, **Frank Wang**, and Dan Boneh. "StegoTorus: a camouflage proxy for the Tor anonymity system." In *Proceedings of ACM Conference on Computer and Communications Security (CCS)* 2012.

8. Peifung E. Lam, John C. Mitchell, Andre Scedrov, Sharada Sundaram, and **Frank Wang**. "Declarative privacy policy: Finite models and Attribute-Based Encryption." In *Proceedings of 2nd ACM International Health Informatics Symposium* 2012.

9. Venkatasubramanian Viswanthan and **Frank Wang**. "Theoretical analysis of the effect of particle size and support on the kinetics of oxygen reduction reaction on platinum nanoparticles." Nanoscale, 2012, 4(16), 5110-5117.

10. Venkatasubramanian Viswanathan, **Frank Wang**, and Heinz Pitsch. "Dynamic Monte-Carlo based approach for simulating nanostructured catalytic and electrocatalytic systems." Computing in Science and Engineering, 2012, 14(2), 60-68.

Invited Talks

CRAFT Conf   Apr 2017
Building Cryptographically Secure Web Application Systems

University of Pennsylvania Security Seminar   Mar 2017
Splinter: Practical Private Queries on Public Data

University of Waterloo CrySP Seminar   Jan 2017

Sieve: Cryptographically Enforced Access Control for User Data in Untrusted Clouds

	Georgia Institute of Technology Cybersecurity Lecture Series *Sieve: Cryptographically Enforced Access Control for User Data in Untrusted Clouds*	Sept 2016
	University of Washington Computer Science Seminar *Sieve: Cryptographically Enforced Access Control for User Data in Untrusted Clouds*	Aug 2016
	Curry-On 2016 *Sieve: Cryptographically Enforced Access Control for User Data in Untrusted Clouds*	July 2016
External Reviewer	2016 IEEE S&P, 2016 ACM CCS	
Teaching	Teaching Assistant for MIT Computer Networks (6.829)	Fall 2016
	Teaching Assistant for MIT Computer Systems Security (6.858)	Fall 2012
	Teaching Assistant for Stanford Introduction to Cryptography (CS 255)	Winter 2012
Other Teaching	**Recurse Center**, Resident Held security and cryptography seminars. Mentored programmers in security, cryptography, and systems.	May 2016, June 2015
	CMU Coursera Class, Online Course Assistant Statistical Thermodynamics: Molecules to Machines	2014 - Current
Awards	**NSF Graduate Research Fellowship**	Sept 2013 - Sept 2016
	Jacobs Presidential Fellowship Massachusetts Institute of Technology	Sept 2012 - June 2013
Industry Experience	**Facebook**, Security Engineer Research Intern Designing and building infrastructure for intrusion detection.	June - Aug 2013
	Google, Software Engineering Intern Chrome security research project for Security Research Team under mentorship of Elie Bursztein and Ulfar Erlingsson.	June - Aug 2012
Other Experience	**Cybersecurity Factory**, Co-founder Summer program that provides mentorship and capital to early stage cybersecurity companies.	2015 - Current
	Sidney Pacific, Board of Trustees Advise new officers, administer elections, and deal with major issues.	May 2015 - Current
	Rough Draft Ventures, Venture Fellow Investment fund that invests in Boston early student startups.	2014 - 2017
	Sidney Pacific, Web Chair Maintain website and create new features.	Sept 2012 - May 2015