

# Frank Y. Wang

frankw@mit.edu  
(408) 893-1709

<https://frankwang.org>

<b>Education</b>	Massachusetts Institute of Technology Ph.D. in Computer Science Advised by Prof. Nickolai Zeldovich and Prof. James Mickens	Sept 2012 -
	Stanford University 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	Sept 2008 - June 2012

## Publications

1. **Frank Wang**, Ronny Ko, and James Mickens. “Riverbed: Enforcing User-defined Privacy Constraints in Distributed Web Services.” In submission.
2. **Frank Wang**, James Mickens, and Nickolai Zeldovich. “Veil: Private Browsing Semantics Without Browser-side Assistance.” To appear 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 Viswanathan 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.

<b>Invited Talks</b>	CRAFT Conf <i>Building Cryptographically Secure Web Application Systems</i>	Apr 2017
	University of Pennsylvania Security Seminar <i>Splinter: Practical Private Queries on Public Data</i>	Mar 2017
	University of Waterloo CrySP Seminar <i>Sieve: Cryptographically Enforced Access Control for User Data in Untrusted Clouds</i>	Jan 2017

	Georgia Institute of Technology Cybersecurity Lecture Series <i>Sieve: Cryptographically Enforced Access Control for User Data in Un-trusted Clouds</i>	Sept 2016
	University of Washington Computer Science Seminar <i>Sieve: Cryptographically Enforced Access Control for User Data in Un-trusted Clouds</i>	Aug 2016
	Curry-On 2016 <i>Sieve: Cryptographically Enforced Access Control for User Data in Un-trusted Clouds</i>	July 2016
<b>External Reviewer</b>	2016 IEEE S&P, 2016 ACM CCS	
<b>Teaching</b>	Teaching Assistant for MIT Computer Networks (6.829) Teaching Assistant for MIT Computer Systems Security (6.858) Teaching Assistant for Stanford Introduction to Cryptography (CS 255)	Fall 2016 Fall 2012 Winter 2012
<b>Other Teaching</b>	<b>Recurse Center</b> , Resident Held security and cryptography seminars. Mentored program-mers in security, cryptography, and systems.	May 2016, June 2015
	<b>CMU Coursera Class</b> , Online Course Assistant Statistical Thermodynamics: Molecules to Machines	2014 - Current
<b>Awards</b>	<b>NSF Graduate Research Fellowship</b> <b>Jacobs Presidential Fellowship</b> Massachusetts Institute of Technology	Sept 2013 - Sept 2016 Sept 2012 - June 2013
<b>Industry Experience</b>	<b>Facebook</b> , Security Engineer Research Intern Designing and building infrastructure for intrusion detection.	June - Aug 2013
	<b>Google</b> , Software Engineering Intern Chrome security research project for Security Research Team under mentorship of Elie Bursztein and Ulfar Erlingsson.	June - Aug 2012
<b>Other Experience</b>	<b>Cybersecurity Factory</b> , Co-founder Summer program that provides mentorship and capital to early stage cybersecurity companies.	2015 - Current
	<b>Sidney Pacific</b> , Board of Trustees Advise new officers, administer elections, and deal with major issues.	May 2015 - Current
	<b>Rough Draft Ventures</b> , Venture Fellow Investment fund that invests in Boston early student startups.	2014 - 2017
	<b>Sidney Pacific</b> , Web Chair Maintain website and create new features.	Sept 2012 - May 2015
<b>References</b>	<b>Nikolai Zeldovich</b> Associate Professor MIT CSAIL nikolai@csail.mit.edu	<b>James Mickens</b> Associate Professor Harvard University mickens@g.harvard.edu
	<b>Vinod Vaikuntanathan</b> Associate Professor MIT CSAIL vinodv@csail.mit.edu	<b>Venkat Viswanathan</b> Assistant Professor CMU MechE venkvis@cmu.edu
	<b>Shafi Goldwasser</b> RSA Professor of EECS MIT CSAIL shafi@theory.csail.mit.edu	