

David Y Wang

6066 Paso Los Cerritos
San Jose, CA 95120

(408)960-4696
dywang@cs.ucsd.edu
<http://cs.ucsd.edu/~dywang/>

Objective

A research oriented position related to Computer Systems, Networking, or Security, with the opportunity to work on compelling problems, that require hands on investigation and experimentation, blended with empirical measurement and insightful analysis.

Education

- **University of California - San Diego** San Diego, CA
PhD, Computer Science Feb. 2011 – Summer 2014
 - Systems & Networking, Security concentration
 - Advised by Stefan Savage and Geoff Voelker
 - My research is centered around e-Crime, in particular Web abuse facilitated through Black Hat Search Engine Optimization (SEO).
 - My thesis presents a *framework for undermining Search abuse at the ecosystem level*, covering virtually all SEO campaigns and their dynamics. We achieve this primarily using two building blocks: (1) a system to detect search result cloaking and (2) attacker insights gained from infiltrating SEO botnets.
 - Other notable work includes: characterizing underground proxies, and studying BHSEO link building services.
- **University of California - San Diego** San Diego, CA
MS, Computer Science Sep. 2008 – Jun. 2010
 - Systems & Networking, Security concentration
 - Advised by Stefan Savage and Geoff Voelker
 - Served as a teaching assistant for Graduate Operating Systems for two academic quarters
 - Key Courses: Distributed Systems, Communication Networks, Internet Algorithmics, & Operating Systems
- **University of California - Berkeley** Berkeley, CA
BA, Computer Science Aug. 2001 – May. 2005
 - Key Courses: Operating Systems, Database Systems, & Communication Networks

Selected Publications

- Search and Seizure: The Effectiveness of Interventions on SEO Campaigns.** David Y. Wang, Matt Der, Mohammad Karami, Lawrence Saul, Damon McCoy, Stefan Savage and Geoffrey M. Voelker. Appearing in *Proceedings of the ACM Internet Measurement Conference (IMC)*, Vancouver, Canada, November 2014.
- DSPin: Detecting Automatically Spun Content on the Web.** Qing Zhang, David Y. Wang, and Geoffrey M. Voelker. *Proceedings of the Network and Distributed System Security Symposium (NDSS)*, San Diego, CA, February 2014.
- Juice: A Longitudinal Study of an SEO Campaign.** David Y. Wang, Stefan Savage, and Geoffrey M. Voelker. *Proceedings of the Network and Distributed System Security Symposium (NDSS)*, San Diego, CA, February 2013.
- Cloak and Dagger: Dynamics of Web Search Cloaking.** David Y. Wang, Stefan Savage, and Geoffrey M. Voelker. *Proceedings of the ACM Conference on Computer and Communications Security (CCS)*, Chicago, IL. October 2011.
- No Plan Survives Contact: Experience with Cybercrime Measurement.** Chris Kanich, Neha Chachra, Damon McCoy, Chris Grier, David Y. Wang, Marti Motoyama, Kirill Levchenko, Stefan Savage, and Geoffrey M. Voelker. *Proceedings of Workshop on Cyber Security Experimentation and Test (CSET)*. Washington DC, August 2011.

Work Experience

- **Google** Mountain View, CA
Graduate Intern *Jun. 2013 – Sep. 2013*
 - Worked in the Web Spam Abuse group
 - Analyzed the relationship between out of date Content Management Systems (CMS) and compromised sites acting as doorways for BHSEO
 - Distilled current academic research on e-crime through informal discussions and formal tech talks
- **eBay** San Jose, CA
Software Engineer *Feb. 2007 – Sep. 2008*
 - Worked in the Search Backend Product Development group
 - Responsible for designing and implementing new Search strategies and features, while at the same time improving performance and manageability of the infrastructure, all within an agile development environment
 - Notable work includes: automating the indexing of Search recommendation indexes, reimplemented the related searches service, implemented key services for the best match Search algorithm
- **ESS Technology** Fremont, CA
Software Engineer *Sep. 2005 – May. 2006*
 - Responsible for developing DVD playback related features in an embedded system
 - Notable work includes: implementing device drivers for reading and writing of memory card devices, enhanced CD audio playback to handle Subchannel Q Data over SPDIF

Skills

Languages: C/C++, Java, Python, Perl, Shell Scripting, CUDA, Assembly (SPARC, x86), PHP, HTML, JS, CSS

Platforms: Unix (Debian, Red Hat), Mac OS X, Windows, Virtualization (Xen, KVM)

Software: Emacs, Eclipse, Xcode, SVN, CVS, Rational Clearcase, VNC, PostgreSQL, MySQL, Apache, R

Projects: Implemented an HTTP/1.1 web server, a Mail Transfer Agent, a Distributed Multi Party Chat; Ported earthquake simulation code (SORD) onto a CUDA GPU based solution; Studied various outbound packet scheduling algorithms using ns2; Implemented a series of micro benchmarks for Mac OS X in the same vein as lmbench