Johnny So

Computer Science PhD Student

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🎓 Google Scholar Profile   👆 Stony Brook PragSec Lab

Education

Aug 2020 – Present	**Stony Brook University**	*Advisor: Nick Nikiforakis*
	Doctor of Philosophy in Computer Science	*GPA: 3.91*
Aug 2016 – May 2020	**Stony Brook University Honors College**	
	Bachelor of Science in Computer Science & Applied Math and Statistics	*GPA: 3.97*

Work Experience

Jan 2019 — Present

Research Project Assistant
Stony Brook University   *Stony Brook, NY*

- Designing an experiment to monitor JavaScript files used by top domains which will enable the analysis and characterization of the changes to such files, including those that introduce or remove code
- Demonstrated that adversaries can exploit *residual trust* in expired domain without heavy financial investment and potentially affect milions of IP addresses situated in tens of thousands of autonomous sytems with a large-scale analysis of traffic to hundreds of re-registered, expired domains over a period of several months [1]
- Assisted in the design and implementation of *login rituals*, a novel intrusion detection and prevention mechanism that leverages a user's familiarity with their individual application setup [2]

Jun 2019 — Aug 2019

Software Development Engineer Intern
Amazon Alexa   *Seattle, WA*

- Created an intent recommendation service for third-party skills using short utterances
- Proposed new services by leveraging other intern projects and existing production services

Jun 2018 — Dec 2018

Software Engineer Intern
Softheon   *Stony Brook, NY*

- Built the prototype of a new online health exchange platform with a backend focus
- Established a preprocessing library used to build machine learning models

Teaching Experience

Aug 2017 — May 2021

Teaching Assistant
Stony Brook University   *Stony Brook, NY*

- (Fall 2020 — Spring 2021, two semesters) Computer Security Fundamentals
- (Fall 2017 — Fall 2018, three semesters) Data Structures

Publications

2022   1.   **So, J.**, Miramirkhani, N., Ferdman, M. & Nikiforakis, N. Domains Do Change Their Spots: Quantifying Potential Abuse of Residual Trust. *Proceedings of the 43rd IEEE Symposium on Security and Privacy (IEEE S&P),* to appear (2022).

2021   2.   Barron, T., **So, J.** & Nikiforakis, N. Click This, Not That: Extending Web Authentication with Deception. *Proceedings of the 16th ACM ASIA Conference on Computer and Communications Security (ASIACCS)* (2021).

Qualifications

- Proficient in programming (e.g., Java, Python, JavaScript, C and C#)
- Proficient with development in a multi-programmer, version-controlled environment (e.g., industry codebase and the Linux kernel)
- Experience with analyzing large data sets and the application of machine learning models and techniques
- Experience with designing large-scale measurement experiments to grasp the current state of the Internet
- Experience with implementing prototypes for novel, application-agnostic web security mechanisms