

Johnny So

Computer Science Ph.D. Candidate

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 Google Scholar  PragSec Lab

About Me

I am a fifth-year CS Ph.D. Candidate advised by Professor Nick Nikiforakis at the PragSec Lab in Stony Brook University. I investigate (the lack of) web integrity in various contexts (e.g., domain names and JavaScript) through large-scale experiments, and subsequently design and evaluate defenses that improve the integrity of the web.

Education

Aug 2020 – May 2025	Stony Brook University <i>Doctor of Philosophy in Computer Science</i>	Advisor: Nick Nikiforakis
Aug 2016 – May 2020	Stony Brook University, Honors College <i>Bachelor of Science in Computer Science</i> <i>Bachelor of Science in Applied Math and Statistics</i>	Summa Cum Laude / 3.98 GPA

Work & Research

Jan 2019 — Present	Research Assistant <i>Stony Brook University / PragSec Lab</i> • Conducting research projects that result in flagship security conference publications	<i>Stony Brook, NY</i>
Jun 2024 — Aug 2024	Software Engineer Intern <i>Meta / In-App Browser - Browser Product Infrastructure</i> • Prototyped new functionality for the Facebook iOS in-app browser	<i>Bellevue, WA</i>
Jun 2023 — Aug 2023	Software Engineer Intern <i>Cloudflare / Bot Management - API Shield</i> • Designed a policy-based system to detect broken object-level authorization in API traffic	<i>Remote</i>
May 2022 — Aug 2022	PhD Research Intern <i>NortonLifeLock Research Group</i> • Dynamically analyzing the integrity of Android applications over time (under submission)	<i>Remote</i>
Jun 2019 — Aug 2019	Software Development Engineer Intern <i>Amazon Alexa</i> • Created an intent recommendation service for third-party skills using short utterances • Proposed new services by leveraging other intern projects and existing production services	<i>Seattle, WA</i>
Jun 2018 — Dec 2018	Software Engineer Intern <i>Softheon</i> • Built the prototype of a new state health exchange platform • Established a preprocessing library used to build machine learning models	<i>Stony Brook, NY</i>

Publications

2025	1.	So, J. , Sanchez-Rola, I. & Nikiforakis, N. <i>Lost in the Mists of Time: Expirations in DNS Footprints of Mobile Apps</i> in <i>Proceedings of the 34th USENIX Security Symposium</i> (Aug. 2025), to appear.
2023	2.	So, J. , Ferdman, M. & Nikiforakis, N. <i>The More Things Change, the More They Stay the Same: Integrity of Modern JavaScript</i> in <i>Proceedings of the ACM Web Conference 2023</i> (May 2023), 2295–2305.
2022	3.	Kondracki, B., So, J. & Nikiforakis, N. <i>Uninvited Guests: Analyzing the Identity and Behavior of Certificate Transparency Bots</i> in <i>Proceedings of the 31st USENIX Security Symposium (USENIX Security 22)</i> (2022), 53–70.
	4.	So, J. , Miramirkhani, N., Ferdman, M. & Nikiforakis, N. <i>Domains Do Change Their Spots: Quantifying Potential Abuse of Residual Trust</i> in <i>Proceedings of the 43rd IEEE Symposium on Security and Privacy (IEEE S&P)</i> (May 2022), 119–133.
2021	5.	Barron, T., So, J. & Nikiforakis, N. <i>Click This, Not That: Extending Web Authentication with Deception</i> in <i>Proceedings of the 2021 ACM Asia Conference on Computer and Communications Security</i> (2021), 462–474.

Teaching

Apr 2024	WSE380: Technical Foundations of a Startup <i>Instructor</i>	<i>Stony Brook University</i>
Mar 2022 & Oct 2022	WSE380: Honeypots and Intrusion Detection <i>Instructor</i>	<i>Stony Brook University</i>
Fall 2020 — Spr 2021	ISE 331: Computer Security Fundamentals <i>Teaching Assistant</i>	<i>Stony Brook University</i>
Fall 2017 — Fall 2018	CSE 214: Data Structures <i>Teaching Assistant</i>	<i>Stony Brook University</i>

Service

Artifact Evaluation	USENIX Security Symposium (USENIX Security) Years: 2022, 2023, 2024, 2025
External Reviewer	International Symposium on Research in Attacks, Intrusions, and Defenses (RAID) Years: 2023 27th Information Security Conference (ISC) Years: 2024

Honors

2024	NSA 11th Annual Best Scientific Cybersecurity Paper <i>Uninvited Guests: Analyzing the Identity and Behavior of Certificate Transparency Bots</i>
2021 — 2022	Graduate Assistance in Areas of National Need (GAANN) Fellowship <i>Stony Brook University</i>

Qualifications

- Driving research projects to publication in flagship conferences

- Proficiency in programming languages (e.g., Python, Java, JavaScript, and C)
- Designing for large-scale projects that require performant, scalable infrastructure
- Programming in large codebases
- Applying machine learning models and techniques
- Learning and incorporating new technologies