

Simon Campos Greenblatt

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Education

Brown University | Providence, RI Expected May 2024

Sc.M. in Cybersecurity, Computer Science Track

Relevant Courses: **Computer Systems Security**, Applied Cryptography, Software Security and Exploitation

North Carolina State University | Raleigh, NC May 2022

B.S. in Mathematics with Minor in Computer Programming

Distinctions: Graduated **summa cum laude**, Mathematics Honors Program, 3.9 GPA

Relevant Courses: Operating Systems, Data Structures and Algorithms, Software Development

Certifications: CompTIA Security+

CPE Credits: SANS Blue Team Summit & Training, SANS HackFest, Proofpoint Security Awareness Specialist

Skills

Programming: Java, C, C++, Python, Ruby, x86 Assembly, HTML, CSS, JavaScript

Technologies: Burp Suite, Wireshark, Kali Linux, Jenkins, Docker, Git, VS Code, Eclipse, Nmap, Autopsy, Nessus

Languages: Fluency in Spanish (native), Italian (fluent), and French (intermediate).

Professional Experience in STEM

Brown University | Providence, RI | Teaching Assistant 2023-2024

- **Migrated the course website** from GitHub to the Computer Science departmental servers. Maintain the website by uploading assignments and keeping the course calendar up to date.
- Hold office hours, grade assignments, and answer questions for a Cryptography and Computer Security course.

Fermi National Accelerator Laboratory | Batavia, IL | Cybersecurity Intern Summer 2023

- Used the Ruby on Rails framework to **redesign the security dashboard** the security operations team uses.
- Integrated vulnerability scanner results into the dashboard, improved its usability, and reduced its load time. Created the first documentation of the dashboard's source code including instructions on how to add new sections.
- Evaluated new features for a software enhancement project for the cybersecurity engine at Fermilab. Presented the results of my work at the U.S Department of Energy's OMNI Fire hackathon event in Washington D.C.

Academic Cybersecurity Projects

Secure File Storage Spring 2023

- Implemented an API in Python for users to upload, download, and share files using **end-to-end encryption**. Employed public and private key cryptography to provide confidentiality and integrity.
- Provided a way of accessing secure cloud storage while meeting efficiency requirements.
- Applied principles of **secure software development** such as defense in depth, threat modeling, and security by design.

Cybersecurity Exercises 2023

- *Developing Shellcode*: Took advantage of memory safety vulnerabilities in hardened software to inject shellcode that hijacks the control flow of a program. **Reverse engineered a binary** to map out its memory and find ROP gadgets.
- *Hacking a website*: Used exploits to perform unauthorized actions on a website. Created **vulnerability reports** detailing the discovery, impact, and mitigation of SQL Injection, XSS, and CSRF attacks.
- *Bypassing access controls*: Demonstrated how safelists can prevent privilege escalation by breaking an autograding system. Analyzed its source code and presented ways of addressing design vulnerabilities.

Research Papers 2021-2022

- *Lattice-Based Cryptography*: Completed a capstone project on the GGH and NTRU cryptosystems. Conducted research on the LLL lattice reduction algorithm. Gained insights into **quantum resistance** and algorithmic complexity.
- *Cybersecurity of Critical Infrastructure*: Evaluated government cooperation with the private sector and the economic, social, and moral incentives at play. Laid out an agenda for increasing adoption of the NIST Cybersecurity Framework.