Simon Campos Greenblatt
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Education

Brown University | Providence, RI — May 2024
M.S. in Cybersecurity, Computer Science Track
Relevant Courses: **Computer Systems Security**, Cybersecurity Management for Organizations

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

Certifications: CompTIA **Security+** (11/23)

Professional Experiences

Oak Ridge National Laboratory | Oak Ridge, TN | Cybersecurity Intern — Summer 2024
- Conducted a security assessment for a vulnerable satellite modem by generating a hardware and software bill of materials, extracting its firmware image, and creating an exploitation prototype for gaining root access.
- Built a test bed for a badge access system to showcase attacks on the protocols between readers and controllers.
- Applied knowledge of secure design practices to **perform vulnerability analyses** with accompanying reports.

Brown University | Providence, RI | Teaching Assistant — 2023-2024
- **Migrated a course website** from GitHub to the Computer Science departmental servers.
- Held office hours, graded assignments, and did curriculum development for two different cryptography courses.

Fermi National Accelerator Laboratory | Batavia, IL | Cybersecurity Intern — Summer 2023
- Used the Ruby on Rails framework to redesign the custom SIEM 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 and outlined all of its libraries and dependencies.
- 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

Cryptographic Systems — Spring 2023
- *Secure File Storage:* Implemented an API in Python for users to upload, download, and share files using end-to-end encryption. Applied principles of **secure software development** such as defense in depth and threat modeling.
- *Anonymous Online Voting:* Implemented the Helios voting protocol to create an encrypted voting platform. Used zero-knowledge proofs to establish a framework of trust among arbiters, tallyers, voters, and the registrar.

Cybersecurity Exercises — 2023
- *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, CSRF, and path traversal attacks.
- *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.

Research Papers — 2022-2024
- *Data-Only Attacks:* Created a vulnerable program that demonstrates the principles of Counterfeit Object-Oriented Programming. **Researched memory corruption vulnerabilities** and ways of aligning objects in memory.
- *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.

Skills

Programming: Java, C, C++, Python, Ruby, x86 Assembly
Technologies: Burp Suite, Wireshark, Kali Linux, Nmap, Ghidra, Nessus, Jenkins, Docker, Git, VS Code
Languages: Fluency in Spanish (native), Italian (fluent), and French (intermediate).