Nick Gregory

nick@nickgregory.me

INTERESTS

Computer security (especially reverse engineering and binary exploitation), meteorology, photography, bowling.

WORK HISTORY

- Research Scientist, **Capsule8** — Jan 2019 – Present
- Research Intern, **Capsule8** — May 2018 – Aug 2018
  - Researched and implemented strategies to detect zero-day attacks
- MySQL Production Engineering Intern, **Facebook** — May 2017 – Aug 2017
  - Rewrote internal tools used to build out new MySQL clusters
- Research Intern, **M.I.T. Lincoln Lab** — May 2016 – Aug 2016
  - Researched techniques to emulate complete embedded systems in the QEMU hardware emulator

EDUCATION

NYU Tandon School of Engineering, Brooklyn, New York, USA

- B.S. in Computer Science — Sep 2015 – May 2019

OTHER EXPERIENCE

- Vice President & Infrastructure Manager, **NYU OSIRIS Lab** — Sep 2015 – Dec 2018
  - Oversaw most lab research efforts, and managed all lab infrastructure
- Co-Lead, **CSAW CTF** — 2016 – 2018
  - Wrote challenges for, and helped run CSAW CTF
  - During this time, CSAW Finals expanded from 1 site to 5 international locations

TALKS

- Uncommon Sense: Detecting Exploits with Novel Hardware Performance Counters and ML Magic, **Black Hat USA** — 2020
- Using Linux Tracing for Security, **CSAW C2** — 2019

PROJECTS

- Holodeck
  - Assisted rehosting of embedded devices in QEMU
- Introduction to Offensive Security
  - A course I co-created to teach offensive security at NYU
- Dispatch
  - A Python framework for programmatically disassembling and patching binaries
- Weather Explorer
  - A fully open-source website for exploring current weather and forecast data
- Snapshot LKM
  - A kernel module to add a fast snapshot/restore mechanism for fuzzing. Adopted by the AFL++ project.

ACHIEVEMENTS & AWARDS

- Dean’s List, NYU Tandon School of Engineering — 2015 – 2017
- Bug Bounties — 2016 – Present
  - Found and reported bugs to 4 Alexa top 1000 sites, multiple of which could have led to complete site compromise.
- 10th Place, DEFCON Finals (RPISEC) — 2018
- 16th Place (10th Academic), iCTF (NYUSEC) — 2017
- 2nd Place, CyberSEED CTF (NYUSEC) — 2016
- 9th Place, CSAW CTF Finals (NYUSEC) — 2015

SKILLS

C, C++, Python, x86 assembly, ARM assembly, MySQL