Nicolas Michel

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: Nicolas-Mich3l

TECHNICAL SKILLS

Programming Languages:	Python, Golang, Solidity, R, C, Javascript
Tools & Frameworks:	MacOS, Ubuntu, RHEL, Unix, Windows & Office Suite, Splunk, SQL, CI/CD, TDD
DevOps Technologies:	AWS, Docker, Bash, PowerShell, Git, JuPyter, Kerberos
Professional Interests:	Cybersecurity, penetration testing, secure software design

EDUCATION

University of Connecticut   Storrs, CT, USA

M.S and B.S in Computer Science and Engineering   *August 2019 - May 2024*

- M.S GPA: 3.429 — B.S GPA: 3.534 — Concentration: Cybersecurity & Blockchains

EXPERIENCE

Graduate Research Assistant   August 2023 – May 2024

University of Connecticut Computer Science Dept.   *Storrs, CT*

- Independently designed, implemented, and tested an application of an existing sidechain-based scaling method to reduce on-chain storage costs associated with Automated Market Makers by upwards of 93%, while also increasing supported throughput significantly. (AMMBoost — Published in DSN2025 — Solidity, Go, SQL, Python3, C, Javascript).
- Implemented feature extraction, data cleaning, and time-gated forgetfulness in an LSTM-based recurrent neural network, ultimately for performing automatic intrusion detection in submarines (Python, Bash, Kerberos).

Software Development Intern   May 2022 – August 2022

Optum   *Hartford, CT*

- Audited Splunk security logs originating from web-application firewalls to identify and report on necessary policy/configuration changes resulting in a 40% reduction in false positive flags for internal scripts & processes.
- Reduced attack surface by implementing automatic detection and decommissioning of low usage virtual IP addresses for UnitedHealthGroup/Optum applications.
- Facilitated inter-team communication to mitigate fallout from decommissioning potentially critical, yet low traffic, applications.

Teaching Assistant   January 2021 – December 2023

University of Connecticut Computer Science Dept.   *Storrs, CT*

- Hosted office hours, provided code review, graded student homework submissions, and wrote answer keys to exams and homework assignments in LaTeX for CSE2050, CSE3140, and CSE3400.
- Installed and configured four Hypervisors running Xen at the Altschuler cybersecurity lab.
- Managed lab deployment & student virtual machines using Ansible, Xen, and Bash scripts (CSE3140).
- Configured and administrated DHCP / DNS / SSH servers & a Cisco switch to permit remote connection to virtual machines distributed across multiple servers.
- Wrote technical documentation detailing networking and configuration details of devices I managed as a TA.

Lab Technician   May 2021 – December 2023

University of Connecticut Operations & Information Management Dept.   *Storrs, CT*

- Designed, wrote, and maintained educational modules on Python3, SQL, Git, R, and Microcontrollers.
- Provided IT & programming support to students visiting the OPIM Innovate Lab.

CYBERSECURITY COMPETITIONS & HACKATHONS

National Cyber League | *Webapp Exploitation, Network Analysis, Digital Forensics, PW Cracking*   2021 – 2024

- 2024 Spring Group game rank (open / all ages bracket): 24 / 386
- 2023 Spring Group game rank: 1 / 3593
- 2022 Fall Group game rank: 114 / 3926
- 2022 Spring Solo game rank: 412 / 6021
- 2022 Spring Group game rank: 210 / 3658