# Nadesh Subramanian

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#### Education

#### **New York University**

M.S. Cybersecurity (CGPA - 3.97/4.0) Graduated May 2024

## **Anna University**

B.E. Computer Science (CGPA - 3.72/4.0)

## Professional Experience

## **Adjunct Professor**

Brooklyn, NY

New York University Jun 2023 - Present

Security analyst

Remote, NYC

Pragra

May 2024 - Oct 2024

- Develop and execute test plans, evaluate control effectiveness, and document findings including remediation recommendations.
- Monitor compliance with security policies and escalate issues when noncompliance is identified.

#### **Application Security Intern**

Remote, NYC

Pen Test Partners

May 2023 - Aug 2023

- Conducted security research and assessments for embedded systems, focusing on automotive CAN Bus security and ECU communications.
- Utilized SIEM tools and Python scripts for real-time event correlation, anomaly detection, and intrusion response in vehicle networks.
- Presented security findings in collaboration with **WSJ**, PTP, and NYU SSL Lab to produce an video. [view here]

## Infrastructure Security & CI/CD - Graduate Developer

New York, NY

NYU High Speed Research Network (HSRN)

Feb 2023 - May 2024

- Implemented advanced intrusion detection capabilities by integrating Zeek using Docker containers.
- Configured network access security using IEEE 802.1X protocol on Dell SonicWall via PacketFence.

#### Research & Development

## Founder - Campus Cabs

Mar 2025 - Present

• Developed a conceptual mobility model to enhance student navigation across NYU's New York City campus; project incubated through NYU's Entrepreneurship program.

#### Security Researcher (Phd Candidate) - SSL NYU

TUF - The Update Framework

Sep 2023 - Jan 2024

- Built security telemetry pipelines for real-time monitoring of software updates, integrating with SIEM solutions to detect unauthorized modifications.
- Implemented multi-signature approval workflows with threshold cryptography, ensuring decentralized control over software signing operations.

Uptane - secure software update framework for automobiles

Aug 2022 - May 2023

- Developed risk mitigation strategies to prevent vehicle attacks through software update channels for V2.0.
- Researched methods for securing vehicle-to-cloud (V2C) communications using TLS and digital signatures.

## Project - MailMask

2021-2023

Sole Developer - <u>legacy page</u>

• Developed and launched a free, publicly accessible email masking platform to enhance user privacy and online security by preventing direct email exposure.

#### **Project - ANUBIS**

Since 2022

Project Developer/Admin, Github, Website

• Introduced support for rootless Docker within the IDEs, enhancing security and flexibility for user environments.

## **Technical Skills**

Operating Systems: Windows, Linux (Ubuntu, RHEL, Kali, Alpine), macOS

Programming Languages: Python, Java, C, C++, Bash, JavaScript, Assembly (x86, ARM)

**Tools & Technologies**: Splunk, Zeek, Snort, Suricata, Prometheus, Qualys VMDR, Nessus, Tenable, Burp Suite, Metasploit, Wireshark, Nmap, GDB, Ghidra, Exploit DB, IDA Pro, Git, Docker, Kubernetes, Terraform, Jenkins, Uptane, AUTOSAR, CANalyzer, CANoe, ELK Stack, QEMU

Others: NIST Cybersecurity Framework (CSF), ISO 27001, SOC 2, PCI-DSS, CIS Controls, HIPAA

## Certifications

AWS Cloud Practitioner & AI Practitioner (Early adopter) Comptia Security +, CySa+. Qualys Certified Expert - Vulnerability Management Jan 2025

Mar 2024

Jan 2023