## **Kyle R. Timmermans**

NYU Tandon '23
Fordham University '21
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## **EDUCATION**

New York University – TandonBrooklyn, NYCybersecurity Master's ProgramMay 2023ASPIRE Scholarship RecipientMay 2023

Fordham University - Bachelor of Science
Major - Computer Science
Minor - Cybersecurity

May 2021

Pelham Memorial High School '17Pelham, NYRegents Diploma, Advanced DesignationJune 2017

Relevant Course Work

● Cybersecurity and Applications, Secure Cyber Networks,

Sept. 2017 - May 2021

• Cybersecurity and Applications, Secure Cyber Networks, Data Communication and Networking, Forensic Computing, Cyberspace: Issues and Ethics, Computer Science I and II (C++), Theory of Computation, Computer Algorithms, Web Development, Database Systems, Operating Systems, Info & Data Management, Software Engineering

# **Cybersecurity Experience**

**Bronx, NY**Sept. 2017 - May 2021

• Splunk Fundamentals, Lansweeper, Wireshark, Burp Suite, Bettercap, Nmap, Kali Linux

## **CVE PUBLICATION**

I found a vulnerability in the Learning Management System, Blackboard. I completed a write-up about the issue and followed the necessary steps in having it published by MITRE and NIST. It was given the enumeration: CVE-2020-9008. The publication can be found at <a href="https://nvd.nist.gov/vuln/detail/CVE-2020-9008">https://nvd.nist.gov/vuln/detail/CVE-2020-9008</a> and the write-up is located at <a href="https://github.com/kyletimmermans/blackboard-xss/blob/master/CVE-2020-9008.md">https://github.com/kyletimmermans/blackboard-xss/blob/master/CVE-2020-9008.md</a>.

#### **Programming Experience**

I have been programming for my major/minor requirement classes at school and continue to program on my own as a hobby. All of my works/projects can be found at <a href="https://www.kyles.world/projects">https://www.kyles.world/projects</a>.

#### WORK AND LEADERSHIP EXPERIENCE

#### Simulmedia Inc

DevOps Intern

Manhattan, NY June – July 2021

• Created a Slack bot that alerts on OpenVPN errors or security issues / events. Written in Python3 and uses a custom algorithm for finding live updates in a sqlite database and preventing duplicates. Also sends user metrics and alerts to Datadog. Uses sqlite3, datadog, and webhooks.

- Created a date parser in Python3 using the re and datetime libraries. Handles multiple date formats from Unix date timestamps to full month and day names. Returns a datetime object in ISO-8601 standard.
- Improved a Python script that is used to collect the metrics of a service that are then sent to Datadog.
- Security Testing / Pentesting Testing and dissecting different routes of microservices and gateways using tools like Burp Suite in order to discover potential security vulnerabilities.
- Researched and implemented Multi-Factor Authentication for OpenVPN Access Server.
- Researched, compared, and presented findings on potential use of High-Availability, Logging, Metrics, and SSO/SAML in OpenVPN, Wireguard, and in AWS Client VPN.
- Apart of Sprint Reviews every week.
- End-of-internship presentation for a company audience of 100+.
- Tools / Technologies Used: Git (GitHub), AWS CLI, AWS Linux 2, Python3, Clubhouse.io, Datadog, AWS EC2 / ECS, AWS IAM, cron / crontab, syslog, AWS Client VPN, json, webhooks, curl, Burp Suite, SQL, Jenkins, Viscosity, LDAP, SSO (OneLogin)

# **Decipher Technology Studios**

Alexandria, VA

DevOps Security Intern

May – August 2020

- Implemented the use of Open Policy Agent into a service mesh infrastructure in order to help protect sensitive information and Restful API endpoints
- Designed and wrote policies in the Rego programming language for Open Policy Agent
- Applied the FIPS 140-2 encryption standard to a service mesh built on top of Envoy proxy to ensure FIPS compliance
- Wrote a small Kubernetes config sanitizer in GoLang for security purposes
- Completed official documentation for projects in Markdown using GitBooks
- Presented work in several product review meetings (SCRUM Meetings Agile Development)
- Used Throughout Internship: Docker, Kubernetes, Envoy Proxy, Git, Bazel, k3d, CircleCI, Helm Charts, Curl, Linux Command Line

### **Pico Quantitative Trading LLC**

Information Security Team Intern

Chicago, IL

July 2019

- Created Company Information Security policies including Bluetooth device security and Virtual Machine policies
- Created reports for data collection and organization in Lansweeper by writing SQL scripts that search and organize host information across several Pico networks
- Used PowerShell scripts to streamline network tasks
- Performed GRC Incident and InfoSec compliance work
- Used Microsoft Excel (Pivot Tables) to log Security Incident Reports back to 2016 up until 2019, organized and compiled statistics on elements such as: *Risk Type*, *Severity*, and *Affected Parties*
- Compiled data into a readable summary in Microsoft PowerPoint to represent crucial data trends for Information Security Reports used by the InfoSec team

- Studied SANS institute InfoSec Policies
- Utilized Microsoft Visio to create detailed virtual schematic models of different networks and devices operated by Pico

### **Elevated Computing**

Manhattan, NY

Information Technology Intern

July - August 2014

- Undertook computer science research related to networks and communications
- Responsible for server management and creation of Linux server (Cent OS)
- Utilized Nagios XI to monitor health of client networks/servers
- Provided IT support to client's employees, including both phone and remote desktop support

### Department of Immunology & Microbiology, New York Medical College

Valhalla, NY

Research Assistant

July - August 2015

- Performed bench research related to DNA toxoplasmosis parasite known as T. Gondii
- Used methods such as Polymerase Chain Reaction and Gel Electrophoresis
- Attended a conference related to research
- Drafted research paper summarizing research results

### Fordham Preparatory School

New Rochelle, NY

May – August 2018

Assistant Rowing Coach

- Driving students to and from the Fordham Prep campus, boathouse, and New Rochelle train station in a Fordham Prep bus
- Driving boat launch alongside rowers whilst coaching
- Working with 50+ student athletes to ensure safety and proactivity
- Responsible for organizing and maintaining rowing equipment
- Created lineups for Freshman, JV, and Varsity sweeping and sculling boats

VIP Beach Club New Rochelle, NY

Front Gate Security

May - August 2017 & 2018

- Signing in club guests and checking identification
- Charging guests at the register in order to add funds to their respective accounts
- Working with management and guests directly in order to ensure quality of life at the club
- Guest-Club relations

### **Huguenot Memorial Youth Group**

Pelham, NY

Mission Trip Member

July 2015 & 2016

- Organized a Spanish class in June of 2015 for participants in an upcoming volunteerism trip to Nindiri, Nicaragua
- Traveled to Nindiri in July 2015 & 2016 to build homes for impoverished local Nindiri families

## **COLLEGE ACTIVITIES AND AFFILIATIONS**

# Computer Science Society:

**Active Member** since February 2019

Robotic building with Arduino boards

Presented in student-run Cybersecurity presentation

# Fordham Men's Rowing Team:

Rowing every season since Freshman year

Gold Medals at Metropolitan Regatta (2017, 2018, 2019)

**Bronze Medal** at Head of the Housatonic (2017)

Experience rowing collegiate Pair, Double, Four, and Eight Boat

# Fordham University Emergency Medical Service (FUEMS)

Hands-on CPR Training

Basic Life Services (BLS) Training taken at Rose Hill Campus

Working towards being a part-time EMT

## **Personal Interests**

- -Studying Italian and Russian Language
- -Computer Programming: <a href="https://www.kyles.world/projects">https://www.kyles.world/projects</a>
  - -Python, C++, JavaScript, Bash, HTML, CSS
- -Crew (Rowing): 9 years
- -Soldering & Arduino
- -Skiing & Snowboarding