## Giovanni Ordonez

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#### **Education**

Purdue University West Lafayette, IN

Master of Science in Information Security

2022

DePauw University Greencastle, IN

Bachelor of Arts in Computer Science & Japanese Studies

2020

Honor Scholar

## **Work Experience**

Lincoln Financial Group Fort Wayne, IN (Remote)

CyberSecurity Engineer (Identity Engineer) Associate

2022 - Present

- Developed a Tableau automation process by which our security team is able to visualize report alerts in an effort to centralize the amount of alerts we receive across multiple platforms.
- Worked on Identity Management by using security tools and writing scripts to gather user information and ensuring that users are able to access what their role requires and nothing more.
- Enforced password management, using security vaults and password rotations, across various projects to ensure that best security practices are followed across different security and development teams.
- Aided other teams with integrating various security tools within their own teams.

## **University College London**

London, UK

Software Engineer Intern

2019

- Developed a web application for users to upload protein sequences to evaluate the sequences' potential for creating new antibiotics
- Consulted with client the potential methods for development while ensuring the protection of intellectual property from common cyber attacks such as NoSQL injection attacks
- Used MongoDB and Node.js with an Express.js framework for the backend and HTML, CSS, and JavaScript for the frontend to build the website

#### Research

#### **Cybersecurity Education**

Fall 2021 - Present

- · Researching the effectiveness of different teaching methods for teaching about common cybersecurity attacks
- The purpose is to increase cybersecurity awareness among users to combat social engineering attacks

### **Cybersecurity in Healthcare**

Fall 2019 - Spring 2020

- Researched various topics of cybersecurity within the healthcare industry
- Found various security issues in hospitals such as unencrypted networks, social engineering vulnerabilities, hackable medical devices, and more

#### **Publications**

Ordonez, Giovanni (2022). COMPARING SOCIAL ENGINEERING TRAINING IN THE CONTEXT OF HEALTHCARE. Purdue University Graduate School. Thesis. <a href="https://doi.org/10.25394/PGS.19684263.v1">https://doi.org/10.25394/PGS.19684263.v1</a>

- In this paper, I researched three types of teaching methods that can be used to teach about concepts of Social Engineering. Specifically which of the three would be a better choice to effectively teach these concepts.
- The purpose of this research was to uncover a means by which we can aid in lessening the overall number of people that fall victim to Social Engineering attacks in an effort to protect both them and companies from data theft.

# Ordonez, Giovanni, "Cyber Security in the Healthcare Industry" (2020). Honor Scholar Theses. 154, Scholarly and Creative Work from DePauw University. <a href="https://scholarship.depauw.edu/studentresearch/154">https://scholarship.depauw.edu/studentresearch/154</a>

- In this paper, I researched various cyber threats that exist within healthcare. This includes attacks on CT Scans and 3D imaging through the use of Machine Learning, attacks on pacemakers that have the potential to kill patients, social engineering attacks, and more.
- This paper focused on uncovering many of the security issues that are within healthcare and bring to attention that change needs to be made to enforce security and protect patients from cyber threats

### **Relevant Course Experience**

Software Security Spring 2021

- Learned common weaknesses that exist in modern software security and what attack vectors exist in software systems
- Used static and dynamic analysis techniques to develop exploits that targeted C/C++ software that had both vulnerabilities and protection mechanisms implemented

Information Security Fall 2020

- Examined security issues in topics such as software security, network security, web security, cryptography, and more
- Examined how these security issues are seen through risk assessments by looking at confidentiality, integrity, and availability

Security Analytics Fall 2020

- Studied Machine Learning techniques by using Tensorflow, Keras, & more to understand where security flaws exist within Machine Learning
- Implemented attacks and defenses against Machine Learning Systems to understand the capabilities an attacker can have against Machine Learning Systems and what can be done to better secure them

### **Introduction to Cryptography**

Fall 2020

- · Studied the mathematics behind the creation of modern encryption algorithms such as RSA encryption
- Studied why older encryption schemes are not secure and what schemes were developed to replace them

## **Relevant Projects**

#### **Keylogger & Keylogger Detector**

- Created a Keylogger to understand how hackers can record keystrokes
- Added a defense against this same keylogger to understand how keyloggers can be stopped

#### **Web Security Exploits**

Created scripts to exploit vulnerabilities in web applications such as XSS, CSRF, and SQL injection attacks

## **Binary Exploits**

- Created scripts to exploit various vulnerabilities found in C/C++ programs
- Attacks included buffer overflow, heap exploitation, fuzzing with ALF, and using Angr for performing Symbolic Execution to exploit programs

#### **Leadership Experience & Extracurricular**

#### Japan American Student Conference (JASC)

Virginia, Portland, Missouri

Member

2018

- · Led group discussions and presented on Cybersecurity issues relating to medical systems, politics, and social media
- Networked and shared with representatives from the World Bank and representatives from the Japanese Embassy on issues regarding International Relations and Cybersecurity
- Developed teamwork skills and leadership skills through group research and presenting on how Cybersecurity affects International Relations

CTF Competitions Virtual
Competitor 2021-Present

Participated in Capture the Flag Competitions to practice general hacking skills

- Primarily focused on Binary Exploitation and Web Security categories
- Uploaded writeups to challenges on my portfolio website

# Skills

- **Programming Languages** Python, JavaScript
- Web Development: JavaScript, HTML/CSS, Firebase, MongoDB, SQL (MySQL, PostgreSQL)
- Security Tools Ghidra, GDB, Pwntools, Nmap
- Operating Systems Mac OS, Linux, Windows
- Foreign Languages Spanish: Native Speaker, Japanese: Intermediate