CASSANDRA CHAPUT

SOFTWARE ENGINEER

CONTACT

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EDUCATION

2019 – 2023
INDIANA UNIVERSITY BLOOMINGTON

- **B.S. In Computer Science**
- **SPECIALIZATION**: Systems
- **MINOR**: Informatics

SKILLS

LANGUAGES:

- Java
- Python
- C/C#/C++
- Swift
- JavaScript
- HTML/CSS

OPERATING SYSTEMS:

- Microsoft Windows
- Mac OS
- Linux
- Xinu

IDEs:

- Xcode
- IntelliJ IDEA
- Visual Studio Code / Community

RECENT WORK

While a software engineer at Karma-X, I was under the mentorship of a 15-year veteran in the cybersecurity industry. I gained experience with security tools & frameworks including Yara, ClamAV, and Metasploit. Using these tools, I was responsible for penetration testing for Karma-X. I simulated attacks using the Metasploit Framework, and tested malware samples in the Karma-X file scanner. I tested & gathered information on the areas in which Karma-X succeeded in the detection & prevention of malicious activity while providing corresponding information on areas in which Karma-X failed to detect or produce a bug. Other responsibilities at Karma-X included restructuring our alert architecture to follow OOP principles, debugging new prevention code, researching upcoming exploits & implementing rules to detect them, and maintaining version control of the Karma-X solution using GitLab.

WORK EXPERIENCE

Digital Operatives / Karma-X

OCT 2023 - FEB 2025

Software Engineer

- Created video guides & documentation for the Vitamin-K & TimeCapsule applications
- Improved system efficiency by refactoring the OOP-based alert system, reducing processing time & CPU usage.
- Enhanced the Karma-X application, contributing to a better User Experience.
- Facilitated team collaboration through Agile practices, and proactive communication.
- Designed and implemented a modular alert system using OOP principles, enabling real-time notifications and easy scalability.
- Enhanced cross-functional collaboration and communication to meet project deadlines efficiently.
- **Technologies used:** Python, C#/C++, Git, CI/CD pipelines, Metasploit framework for penetration testing, C#/net core, net, Asp.net Frameworks for building and running applications, and Cryptography extensions for RSA & AES encryption.

VAE Inc

SUMMER 2020

Intern Developer

- Collaborated with a team of software developers to design and implement innovative solutions.
- Developed a 'network faker' to dynamically alter IP addresses for incoming network connections, enhancing security and testing capabilities.
- Leveraged expertise in C and C# to modify and optimize server-side connection handling.