Christopher A. Zabel

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Summary

Problem-solving and results-oriented IT professional with college experience in software development and cyber security. Highly adept at analyzing a user's needs and designing and developing software to meet individual needs. Possess the ability to recommend software upgrades for a client's existing programs and systems. Skill in discovering vulnerabilities and risks in networks, software systems, and data centers via ongoing vulnerability scans, monitoring network data, and ensuring hardware and software applications are updated. Excel in software development, computer networking, and information security, with additional experience participating in CTFs and online pentesting challenges. Worked on updating and improving a python program with a lot of data and calculations to further personal data science experience, and Obtained my Comptia Security+ and Network+ certification.

Competencies

Software Development | Cyber Security | Troubleshooting | Problem Resolution | Process Improvement | Team Leadership | Relationship Management | Data Analysis | Vulnerability Scans | Network Data Monitoring | Computer Networking | Network Systems & Security | Human-Computer Interaction | Computer & Network Forensics

Technical Proficiencies

Java | C | C++ | Prolog | Scheme | Python | Bash | SQL | Microsoft Windows | Linux | MacOS | Disassemblers | Data Structures | Unit Testing | Docker | Django

Experience

Personal Work/Training **2023 - Current**

CompTIA - Security+ Certification

- General Security Concepts
- Threats, Vulnerabilities & Mitigations
- Security Architecture
- Security Operations
- Security Program Management & Oversight

CompTIA - Network+ Certification

- Networking Fundamentals
- Network Implementations
- Network Operations
- Network Security
- Network Troubleshooting

HackTheBox

- Attained advanced penetration testing training on HackTheBox, excelling in diverse cybersecurity challenges.

Mastered:

- Linux privilege escalation
- Buffer overflow attacks
- Reverse-engineering binaries
- Demonstrated adept vulnerability exploitation
- Shellcode execution
- Strong network intrusion detection skills
- Enhanced ethical hacking knowledge
- Adeptly secured complex systems against cyber threats.

Grand Challenges Scholars Program (GCSP) **2021-2022**

Enhanced GCSP's data management capabilities during a two-semester tenure by implementing a cloud-based solution known as Airtable. Strategically optimized the collection of Personally Identifiable Information (PII) to empower alumni with the ability to independently update their personal details.

Arizona State University **2022**

Specialized in computer network security, employing network vulnerability scanning, encryption, authentication, and intrusion detection. Designed and implemented security measures for safeguarding networks and data from cyber threats. Performed several TCP/UDP attacks and set firewall rules to detect these attacks on virtual machines.

Trained in computer and network forensics, using digital forensics tools like Autopsy and FTK Imager. Conducted investigations to recover and preserve digital evidence for legal and cybersecurity purposes, contributing to incident resolution.

Arizona State University **2021**

Attained in-depth knowledge of Operating Systems, covering process management, memory management, file systems, and device management. Learned to optimize system resources for efficient computing.

Advanced understanding of programming languages, exploring language paradigms, syntax, semantics, and design concepts. Skilled in selecting appropriate languages for specific tasks and projects.

Comprehensive knowledge of computer networking principles and protocols, including network architecture, data transmission, routing, and security. Equipped to design, troubleshoot, and optimize network infrastructures for various applications. In-depth understanding of the OSI model.

Implemented security measures to protect computer systems and data, focusing on threat analysis, cryptography, access control, and network security. Performed hundreds of privilege escalation techniques through binaries using; shellcode injections, kernel exploits, reverse engineering, race conditions and many others.

Arizona State University **2020**

Trained in C, C++, Python, and Java to create software applications. Improved proficiency in software development concepts, syntax, and logic. Familiarity with software development lifecycle, requirements engineering, and testing methodologies. Gained experience in collaborative development, project management, and building high-quality software products.

Gained expertise in data structures and algorithms, facilitating efficient data organization and manipulation. Strengthened problem-solving and algorithm analysis skills. Developed a compression application of text files for faster processing and to improve data structures and algorithms.

Studied information assurance, focusing on cybersecurity and safeguarding data. Analyzed risk, cryptography, network security, and secure software development practices to protect information confidentiality, integrity, and availability.

Education

Bachelor of Science (BS) Degree in Computer Science, Concentration in Cyber Security
Arizona State University, Fulton, AZ

Coursework: Object-Oriented Programming & Data | Computer Organization / Assembly Language Programming | Intro to Programming Languages | Logic in Computer Science | Data Structures & Algorithms | Intro to Software Engineering | Information Assurance | Operating Systems | Principles of Programming Languages | Entrepreneur & Value Creation | Computing Ethics | Computer Networks | Computer Systems Security | Intro Human Computer Interaction | Computer Network Security | Computer & Network Forensics | Computer Science Capstone Project

Certifications: CompTIA Security+ | CompTIA Network+