# Jake Derkowski

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## Professional Experience

**5Q Cyber**
*Dallas, Texas*
SECURITY OPERATIONS CENTER ANALYST
*Jan. 2021 - Present*

- Identified vulnerabilities and triaged network events using the NIST and CIS frameworks to strengthen system security
- Created reports on a regular basis to illustrating security operations metrics and to educate clients
- Provided effective communication to the clients, created a team-like relationship that would bring insight and successes
- Devloped custom applications and specific solutions for the clients, always with automation as the ultimate goal

**Website, Inc.**
*Houston, Texas*
SYSTEM ADMINISTRATOR
*May 2020 - Nov. 2020*

- Transferred clients' resources to an updated server where troubleshooting with clients was also a high priority
- Managed a Linux (CentOS) server environment that primarily used Apache2, MySQL databases, and PHP, over 100 client sites
- Quickly responded to customer's concerns and tickets by explaining or troubleshooting over the phone or SSH into their server

## Education

**Sam Houston State University**
*Huntsville, Texas*
MASTER OF SCIENCE, INFORMATION ASSURANCE & SECURITY
*August 2020 - May 2022*

- Center of Academic Excellence in Cyber Defense Education
*(Online)*

**Sam Houston State University**
*Huntsville, Texas*
BACHELOR OF SCIENCE, COMPUTER SCIENCE
*June 2018 - May 2020*

- Concentrated studies in Information Assurance and Digital Forensics, ABET Accredited
- Philosophy Minor
**GPA: 3.33**

## Honors & Awards

2020   **Best Project**, Information Security Class Competition, Sam Houston State University   *Huntsville, Texas*
2020   **Regional Qualifiers**, Collegiate Cyber Defense Competition   *Remote, U.S.A*
2020   **Dean's List**, Sam Houston State University   *Huntsville, Texas*
2019   **Dean's List**, Sam Houston State University   *Huntsville, Texas*

## Skills

| | |
|---|---|
| **Languages** | Ada, Agile Methodologies, Bash, C++, Java, PowerShell, Python, Kusto (KQl), SQL |
| **Systems** | Administration and maintenance of Linux/UNIX OS (Kali, Ubuntu, CentOS), Windows 10, and Server 2012R2/2016 |
| **Tools** | Ettercap, exploit-db, M365/O365, Power BI, Git, Metasploit, Nmap, Snort, VMware, WireShark |
| **Network** | Active Directory, Azure, Cloud Computing & Migration,DNS, Firewalls, Group Policy, TCP/IP, Virtualization, |
| **Security** | SIEMs, Basic Splunk Queries, Azure Sentinel, Microsoft Security & Compliance, Threat hunting |

## Projects

**Romania Problem**
*Personal Project*
ARTIFICIAL INTELLIGENCE
*July 2016*

- Utilized Artificial intelligence search algorithms to find the shortest path between two cities such as Breadth-first, Depth-first, Iterative Deepening Depth-first
- Implemented program modularization by packaging similar functions into modules to be imported, increasing readability and allowing for future changes to be completed efficiently

### Cyber Warfare

*Class Project*

Sam Houston State University

*January 2020 - May 2020*

- Constructed a secure, fully-functional virtual network using CentOS and Windows Server 2016 systems
- Attacked and successfully penetrated the opposing team's network using techniques such as information gathering, scanning and network discovery, enumeration, etc.

### Zoom Project

*Research Project*

Sam Houston State University

*January 2020 - May 2020*

- Identified vulnerabilities within the Zoom Video Conferencing application through extensive research
- Captured user credentials via packet poisoning and filtering; cracked with hash-cat
- Successfully discovered the cause of the vulnerability, then provided possible remediation

### Collegiate Cyber Defense Competition

*Linux Specialist*

Sam Houston State University

*January 2020 - May 2020*

- Participated with a team, in life-like scenarios, where we worked together to protect and defend our network against active attacks from professional penetration testers, forcing us to communicate and work together to utilize the strengths of each individual
- Monitored and audited our machines, specifically targeting users with unauthorized privileges, to mitigate and prevent threats; accounting for nearly half of our team's points
- Identified potential threats, acknowledged abnormal behaviors, and dispersed important communication throughout the team in order to mediate and prevent threats to the other machines

### Base Blocks

*Software Engineering*

Sam Houston State University

*January 2020 - May 2020*

- Recreated a math learning game using Unity game-engine (C#) and used a FireBase Database that provided the tools to create an aesthetic interface while increasing its teaching power
- Stored player information and game data in real-time which prevented data loss allowed player to continue and compare their progress to their classmates creating a competitive environment; increasing student participation

### Twitter Forensics

*Independant Research*

Sam Houston State University

*June 2019 - August 2019*

- A forensic tool for collecting and investigating all activity and information of Twitter users all packaged together into a user-friendly command-line tool.
- Investigation can be performed in an organized and reliable manner due to the various formats return information can be stored including JSON, pandas, database, and elastic-search. In the case of the database output, all information is stored into structured tables, specific to the type of search parameters used allowing for connections to be made through the use of querying keywords or user names