Yonghyun Kim

Email: skyout99@gmail.com | Phone Number: (405)-328-8985

Education

The University of Central Oklahoma, *[Edmond, OK]*

- **Bachelor of Science:** Computer Science & Data Science **[GPA:** 3.51]

Technical Skills

Programming: Python, C++, Java, SQL (Oracle), PHP
Web Development: HTML/CSS, JavaScript
Security/CTF: Burp Suite, Nmap, Kali Linux, Sysdig, Cisco Packet Tracer

Technical Experience

University of Central Oklahoma

August 2022 - Present

Research Assistant *(Cyber-Attack Analysis and Anomaly Detection Using a Graph-Driven Deep Learning Technique)*

- Conducting various penetration tests for vulnerable versions of software to capture system call data
- Creating and visualizing a dataset using the Sysdig tool and Python
- Performing anomaly detection model using Graph Neural Network deep learning technique

August 2020 - Present

Lab Technician

- Assisted lab users with hardware/software issues
- Supported to install and operate various computer programs and equipment with a supervisor
- Maintained the computer lab properly

May 2022 – August 2022

Research Assistant (Sponsored by Sandia National Laboratory) *(Vulnerability Simulation and Dataset Creation)*

- Researched and analyzed vulnerable software based on the CVE for penetration testing
- Conducted penetration test in the AWS environment and analysis of system calls during the vulnerability exploitation
- Maintained documents for reproduction steps

August 2021 – May 2022

Research Assistant *(Using Process Characteristics for Anomaly Detection)*

- Conducted penetration test in the Damn Vulnerable Web application
- Created a dataset with the command-injection attack using the Sysdig tool and visualization of the pattern of system calls using Python
- Analyzed the anomaly patterns in system calls during the attack

August 2020 – March 2021

Research Assistant *(Comparison of NBA Personal Fouls)*

- Extracted personal fouls raw data from the regular season and playoff season
- Created dataset and visualization of data using R
- Analyzed the dataset statically to determine a significant difference between personal fouls and season

Activities & Awards

Conferences

- Oklahoma Research Day (2022) – Using Process Characteristics for Anomaly Detection
- Oklahoma Research Day (2021) – Comparison of NBA Personal Fouls

Awards

- John Taylor Beresford Endowed Scholarship for Computer Science (2022)