

# Kaitlyn DeValk

Cybersecurity and information security professional with 7 years of progressive experience operating within public domains to include the Department of Defense and Department of Homeland Security. Experienced in vulnerability and penetration test assessments, Red Team operations, Security Operations Center (SOC), and Incident Response.

[ <https://kaitlyndevalk.com> ] . [ <https://github.com/artemis19> ]

## Education

**Master's in Computer Science, University of Maryland (UMD)** (2021-2022)

- Advised by Dr. Niklas Elmqvist.
- Thesis research focused on designing human-centered and usable cybersecurity visualizations.
- Coursework focused in security, information visualization, and data science.

**B.S. in Electrical Engineering, US Coast Guard Academy (USCGA)** (2015-2019)

- Focused in Computer Systems.

## Experience

**Officer Candidate, USCGA** (2015-2019)

- Cybersecurity Team Captain: lead the team to first-place in multiple competitions. Personally developed training material, and briefed multiple flag-level officers and VIPs: Coast Guard Commandant, Congressmen, the Department of Homeland Security Under Secretary for Science and Technology, and more.
- Opened the first Cyber Lab at the US Coast Guard Academy for the establishment of the Cyber Systems major with the USCGA Superintendent and Coast Guard Commandant.

**Department of Defense Internship** (Summer 2018)

- Automated network infrastructure using variety of programming languages & software.

**Operational Assessments Team Lead, Coast Guard Cyber Command** (2019-2021)

- Ran 24/7 watch floor for the Coast Guard Enterprise Mission Platform, handling incident response and coordination for +45K endpoints.
- Coast Guard Assessments Lead for vulnerability and penetration test assessments for Coast Guard systems.

- Developed penetration testing training and mock assessments for Vulnerability Assessment team members.
- Assessed risk for mission essential systems, developed risk assessment report, & provided appropriate recommendations.

#### **Graduate Research Assistant, UMD (2021 - 2022)**

- Worked with Dr. Niklas Elmqvist and UMD ARLIS on visualizing supply chain logistics with geospatial data.

#### **Cyber Protection Mission Element Lead, Coast Guard Cyber Command (2023 - Present)**

### **Core Competencies**

**Technical:** Python, Golang, Javascript, HTML, CSS, Bootstrap, Flask, Django, Tableau, Jupyter Notebooks, Penetration Testing, and Incident Response

**Professional:** Cybersecurity Documentation, Engineering Technical Writing, and Risk Management & Assessment Report Writing

### **Certifications**

- Certified Information Systems Security Professional (CISSP) Certification, July 2020
- GIAC Certified Incident Handler (GCIH) Certification, November 2020
- GIAC Certified Penetration Tester (GPEN) Certification, February 2021

### **Training**

- SANS SEC542: Web App Penetration Testing and Ethical Hacking, October 2016
- SANS SEC573: Automating Security with Python, February 2019
- The Linux Foundation: Essentials of Linux System Administration, Throughout 2020
- SANS SEC504: Hacker Tools, Techniques, Exploits, and Incident Handling, November 2020
- SANS SEC560: Network Penetration Testing and Ethical Hacking, December 2020

### **Talks & Publications**

- Presented “Industry Perspectives on Offensive Security Tooling” at SOUPS 8th Workshop on Security Information Workers, August 2022
- Presented “Riverside: Dynamic Visualization of Network Traffic for Situation Awareness in Computer Security” poster at IEEE VizSec Conference, October 2022

- Toolshed Presentation for “Riverside: A Network Security Visualization” at Wild West Hackin’ Fest, October 2022

## **Projects**

### **Riverside (2022)**

- Designed and developed a complete network security visualization system as part of my master’s thesis research. Source code is located here. (Golang, Javascript, HTML, CSS)

### **Personal Website Development and Blog (2019-Present)**

- Developed personal website with blog on technical and personal topics in the INFOSEC community. (Flask, Jinja, Nginx, uWSGI, HTML, CSS, Javascript, Bootstrap)

### **Augmented Reality for Coast Guard Mission Support (2018-2019)**

- Augmented US Coast Guard Maintenance Procedure Cards to train new personnel and reduce errors during the maintenance process using the Microsoft HoloLens technology. (C#, Microsoft HoloLens Mixed Reality, Unity, Visual Studio)

## **Significant Achievements**

- DEFCON Red Team Village CTF ‘22, 2nd Place
- DEFCON Red Team Village CTF ‘21, 6th in Qualifiers, 9th in Finals
- CISA President’s Cup CTF ‘20, 1st place in Round 1 for Department of Homeland Security, Top 15% in Semi-Finals
- SANS NetWars Military Services Cup ‘19-20, 3rd Place, competed for USCG Cyber Command
- Cyber 9/12 Strategy Challenge in Geneva, Switzerland ‘19, Best Oral Presentation, Semi-Finalist