# Steff Bisinger

## **Education**

### **Iowa State University**

Ames, IA

Masters of Science in Information Assurance and Computer Engineering, GPA: 3.81 2016–2018

Specialization in Secure and Reliable Computing

Major professor: Dr Doug Jacobson

Iowa State University

Ames, IA

Bachelor of Science in Software Engineering

2011-2016

## **Experience**

Research.....

## **Argonne National Laboratory**

Lemont, IL

Research Assistant

2017-2018

Argonne's COAR group is a team of researchers dedicated to making advancements in the field of cybersecurity. Detailed achievements:

- o Implement code quality controls for the group's research code bases. This will help the group get their code ready to be used in a production environment and continue to assure that the code is of acceptable quality as new features are added.
- Transform a research code base into production-ready code by auditing it, refactoring the code, and adding unit tests.
- o Create graphics and research poster for a project.
- o Co-authored a paper on a moving target defense solution for web servers.

#### **ISEAGE** Lab, Iowa State University

Ames, IA

Research Assistant

2013–2018

The ISEAGE lab at Iowa State University hosts 5 cyber defense competitions at varying levels of education each year with the goal of offering students and professionals a safe environment in which to practice their security skills.

Detailed achievements:

- Rewrote the scoring system's availability testing functionality using Celery, a library for creating and managing worker processes. This allows the scoring system to better utilize server resources under heavy load.
- o Directed the 2015 National Cyber Defense Competition.
- Created vulnerable applications for Cyber Defense Competitions.
- Led Red Team in attacks against Blue Teams' systems.
- o Led Green Team in assessing the usability of Blue Teams' systems.

Professional....

**Rockwell Collins** Cedar Rapids, IA

Network Security Intern

2016-2016

Detailed achievements:

- Assisted in replacing and upgrading access token infrastructure.
- o Analyzed and cleaned up firewall rules.
- o Modified Perl scripts to aid in gathering and analyzing firewall logs.

Workiva Ames, IA Security Intern 2015-2015

Workiva is a software startup that creates products that make SEC filings easy.

Detailed achievements:

- o Assessed the security of internal web applications using tools like BurpSuite and custom Python code.
- o Assisted with company-wide security training by developing a tool for visualizing the performance of individual employees in previous trainings.
- o Contributed code to fix minor bugs in the company's main product.

#### Software skills

Programming Languages: Python, Java, C, Software Development: PyCharm, Eclipse, Scala, Erlang, Bash, HTML5, CSS, Javascript

Forensics/Analysis:

**IDAPro** 

GCC, GDB

Penetration Testing: Wifi Pineapple, Bash Databases/Data Analysis Tools: SQL, Splunk, Bunny, BurpSuite, Metasploit w/ custom mod- Apache Hadoop, Apache HDFS, Apache Spark, ElasticSearch

Wireshark, Volatility, Web Application Frameworks: Django, Flask

**Professional Development** 

Wild West Hackin' Fest Capture the Flag Competition 2017: First place team

DEFCON Internet of Things Village Capture the Flag Competition 2017: Competed and got on the board.

National Cyber Analyst Challenge: Hosted by Lockheed Martin, Leidos, and Temple University

- o Team mentor 2018
- o Finalist team 2016
- First place team 2015

Cyber Defense Competition: Hosted at Iowa State University by ISEAGE

- o Captain of first place team, Nationals 2014
- o Captain of first place team, Fall 2013

## Languages

English: Native speaker

Spanish: Intermediate Four years of high school classes

Russian: Novice One university course and some self study

### **Publications**

Polymorphic Rotational Web Server A Moving Target Defense Solution.: In progress.

### Outreach

## FIRST Tech Challenge

Various locations, IA

Wifi/Field Technical Advisor

2016-2018

FIRST Tech Challenge is a program that teaches high school students problem solving and the engineering process through robotics challenges.

USA Archery Alburnett, IA

Level 2 Coach

2013-2016

USA Archery's Junior Olympic Archery Development program prepares young archers to be competitive at a national and international level while teaching them respect, confidence, and self-awareness.

## Alburnett Archery, National Archery in the Schools Program

Alburnett, IA

Assistant Coach

2011-2013

The National Archery in the Schools Program teaches archers grades 4 through 12 integrity and confidence.

## **Affiliations**

**CyberCorps Scholarship for Service**: CyberCorps Scholarship for Service funds students pursuing degrees in the field of cybersecurity who then serve government entities.

**Information Assurance Student Group**: Iowa State University's Information Assurance Student Group is a club that meets weekly to share cybersecurity knowledge.

**SecDSM**: SecDSM is a cybersecurity organization that gathers professionals from the area to network.

### References

Professional	Character
o Dr Jim Davis	Amongst others:
<ul> <li>Dr John Burnley</li> </ul>	<ul> <li>Vance Patrilla, and</li> </ul>
o Dr Ben Blakely	o Dr Jan Weirsema