

ELI T. FULKERSON

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## EDUCATION

Dakota State University

*In Progress*

Currently Pursuing Doctor of Philosophy in Cyber Operations

# Western Governors University

2019-2020

Master of Science, Cybersecurity and Information Assurance

Salisbury University

1997-2001

Bachelor of Science, Computer Science, *cum laude*

Minor in Mathematics

## EXPERIENCE

Raytheon Technologies/ Raytheon Missiles and Defense

June 2021 - Present

*Principal Specialist, Cyber Vulnerability Assessment*

RMD Cyber Exploitation and Assessment

*Tucson, AZ*

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Raytheon/Raytheon Missile Systems

August 2019 - June 2021

*Senior Cyber Network Technologist I*

### *RMS Network Security*

*Tucson, AZ*

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Eastern Shore Regional Library

January 2002 - July 2019

Database and Network Specialist

*Salisbury, MD*

- Responsible for wide area networking at twenty-five library sites spanning eight Maryland counties, including firewall and switch configuration and maintenance, VPN configuration, network monitoring and incident response.
- Built and maintained the ESRL Data Center, including networking, security, server equipment, backups and disaster recovery. Coordinated electrical (generator/UPS), and HVAC design.
- Interfaced with neighboring state agencies, county governments, school systems and other libraries in the course of growing and maintaining the library network.
- Experienced with Cisco Pix and ASA firewalls, Cisco Catalyst switches, Aironet and Aruba access points, Extreme Summit switches.
- System Administrator for sendmail, BIND, Squid, Apache, MySQL on Linux (originally Redhat from 6.0 until RHEL, later Debian/Ubuntu under VMWare ESXi) Additionally Zimbra and Kerio email servers, Barracuda and Websense Web Filters and Netapp storage systems.
- Reverse engineered web content filtering system to maintain interoperability with library systems, wrote and maintained a Python based replacement.

- Wrote and maintained anonymous logging system to gather required wireless network usage statistics while maintaining library patron confidentiality.
- Designed, implemented and maintained LAMP stack (Linux/Apache/MySQL/PHP) web database applications.
- Wrote and maintained secure authorization system for access to library digital resources.
- Provided technical support for desktops, library catalog systems and PC management systems.

## **Open Source**

2005 - Present

*Developer*

*part-time/hobby*

- Author of multiple small open source projects, most notably the network utilities tcping and mturoute
- Various projects and languages with support and feature requests via email
- Projects can be found at <https://elifulkerson.com/projects>
- Built and maintain network debugging websites [whatismyproxy.com](http://whatismyproxy.com) and [dnsparanoia.com](http://dnsparanoia.com)
- Creation of new open source projects is on hold due to current employer restrictions.

## **Mitigus LLC**

March 2012 - August 2014

*Web Developer*

*part-time/remote*

- Database design, MySQL, PHP, Python, HTML, CSS, JavaScript. Integration with Authorize.net CIM API. Auto-generation of object oriented PHP/MySQL code from provided business logic.

## **Engineered Solutions**

August 2011 - August 2014

*Developer*

*part-time/remote*

- Implemented custom C# Forex trading platform integration with QuickFix and MetaTrader4, developed custom Python debugging tools for same.
- Created Python/JSON/jQuery web currency pair data ticker connected to live FIX data source.

## **Abandoned Reality MUD**

1997-2006

*Developer/Game Designer*

*hobby*

- Developed in-game content with internal scripting languages and embedded Python.
- C++ network server programming and bugfixing with g++, gdb under Linux.
- Interaction with co-developers and source code version control systems.

## **Caroline County Public Library**

Summer 2001

*Database Developer*

*freelance*

- Database design and web programming for the "Francis A. "Sonny" Callahan Postcard Collection", an electronic archive of historic photographs, using ASP/MSSQL on Windows NT/IIS.

## **Internship**

Spring 2001

*Developer*

- Developed web accessibility software for the visually disabled. Project utilized Visual Basic and the Microsoft Speech SDK.

## TRAINING AND CERTIFICATIONS

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### CompTIA:

CASP+, Pentest+, CySA+, Security+, Cloud+,  
Linux+, Server+, Network+, A+, Project+

### EC-Council:

Certified Ethical Hacker (CEH)  
Computer Hacking Forensic Investigator (CHFI)

### (ISC)²:

Certified Information Systems Security Professional (CISSP)

### Offensive Security:

Offensive Security Certified Professional (OSCP)  
Offensive Security Web Expert (OSWE)  
Offensive Security Wireless Professional (OSWP)  
Offensive Security Certified Expert (OSCE)

### SANS/GIAC:

GIAC Penetration Tester (GPEN)  
GIAC Exploit Researcher and Advanced Penetration Tester (GXPN)  
GIAC Reverse Engineering Malware (GREM)

### Other:

Forcepoint NGFW Administrator  
Maryland Library Associate (expired)

## TECHNICAL STRENGTHS

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<b>Computer Languages</b>	Examples of my work in Python, C++, C#, bash, Visual Basic, PHP, Javascript/JQuery, HTML, CSS, ASP, XML are available on my website.
<b>Protocols and APIs</b>	Deep knowledge of the TCP/IP protocol suite. Have written network debugging utilities utilizing TCP, ICMP, ARP, MTU negotiation, HTTP, SSL/TLS, WinPcap, IPv6 and raw sockets. Have written utilities for library domain-specific protocols SIP2 (Simple Interchange Protocol 2.0) and NCIP Passing acquaintance with FIX (Financial Information eXchange) protocol and the Authorize.net CIM API
<b>Hardware</b>	Experienced with Cisco equipment (routers, ASA Firewalls, Catalyst Switches, Aironet Wireless Access Points), Extreme Switches, Forcepoint Next Generation Firewalls
<b>Links</b>	<a href="https://elifulkerson.com/portfolio">https://elifulkerson.com/portfolio</a> <a href="https://elifulkerson.com/projects">https://elifulkerson.com/projects</a> <a href="http://whatismyproxy.com">http://whatismyproxy.com</a> <a href="https://dnsparanoia.com">https://dnsparanoia.com</a> <a href="https://www.linkedin.com/in/eli-fulkerson">https://www.linkedin.com/in/eli-fulkerson</a> <a href="https://www.credly.com/users/eli-fulkerson">https://www.credly.com/users/eli-fulkerson</a>