ELI T. FULKERSON

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EDUCATION

Dakota State University   *In Progress*
Currently Pursuing Doctor of Philosophy in Cyber Operations
Discovered and published CVE-2022-32429

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 DT Cyber Exploitation and Assessment   *Tucson, AZ*

· Currently a member of the RMD CEA team, which performs penetration testing (Red Team) and cybersecurity assessments against RMD factories, labs and applications.
· Demonstrate and document methods of exploitation of systems in order to promote the timely and effective resolution of security issues.
· Design and implement scripting for data extraction and report generation with security products (Rapid7 Nexpose, Invicti/Netsparker)
· Active security clearance.

Raytheon/Raytheon Missile Systems   August 2019 - June 2021
Senior Cyber Network Technologist I
RMS IT Network Security   *Tucson, AZ*

· Designed, implemented and handled change requests for firewalled networks to meet specific security and functional requirements.
· Participated in design meetings as networking/firewall subject matter expert.
· Maintain and troubleshoot Forcepoint firewalls. Troubleshoot neighboring Cisco infrastructure as necessary to resolve firewall issues.

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 the network protocol for 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, implementated 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
Developer

2005 - 2019 (On Hold)

part-time/hobby

- Author of multiple small open source projects, most notably the network utilities tcping and mturoute.
- Provide email support to users as well as handling feature requests and occaisonal code submissions.
- Built and maintain network debugging websites whatismyproxy.com and dnsparanoia.com
- Work on new projects is on hold since 2019 due to current employer restrictions/potential IP concerns.

Mitigus LLC
Web Developer

March 2012 - August 2014

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
Developer

August 2011 - August 2014

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
Developer/Game Designer

1997-2006

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
Database Developer

Summer 2001

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
Developer

Spring 2001

- Developed web accessibility software for the visually disabled. Project utilized Visual Basic 6 and the Microsoft Speech SDK.

TRAINING AND CERTIFICATIONS

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

Computer Languages	Examples of my work in Python, C++, C#, bash, Visual Basic, PHP, Javascript/JQuery, HTML, CSS, ASP, XML are available on my website.
Protocols and APIs	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
Hardware	Experienced with Cisco equipment (routers, ASA Firewalls, Catalyst Switches, Aironet Wireless Access Points), Extreme Switches, Forcepoint Next Generation Firewalls
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