

## Katrina Dube

Projects and other relevant information such as certificates are accessible here: <https://github.com/Kd0ve>

### Summary

Curious and results-oriented Cybersecurity Specialist with a Bachelor of Science in Cybersecurity and a passion for ethical hacking, red teaming, and offensive security. A scholarship-winning Penetration Tester-in-training with hands-on experience simulating AD attacks and exploiting authentication protocols. Known for strong leadership in CTF communities, collaborative problem-solving, and technical precision across labs, live environments, and training pipelines. With exposure to both offensive and defensive processes and a growing toolkit of exploit and analysis tools.

### Education

**Purdue University Global Bachelor of Science in Cybersecurity 4.0 GPA**

**November 2024**

- FS-ISAC 2023-2024 Women in Cyber Scholarship Winner
- Order of The Sword and Shield Honors Society (OSS)
- SBIT Student Advisory Board Member (2023)

### Technical Skills

**Operating Systems:** Windows, macOS, Linux

**Technical Support:** Hardware troubleshooting, software installation, system configuration, remote assistance

**Networking:** Computer networking, network administration, network security

**Tools:** Microsoft Office (Excel, Word), Wireshark, Nmap, Burp Suite, PowerShell, Bash

**Programming/Scripting:** Python, JavaScript, HTML, CSS

**Customer Service:** Problem resolution, client communication, product recommendations

### Professional Experience

**IT Director** | Appalachia Business Communications of Kingsport, Inc

February 2025 – July 2025

- Maintained IT stack including EDR and RMM solutions for 40+ endpoints.
- Managed remote monitoring and maintenance on 40+ endpoints.
- Provided on-site technical assistance to clients including network configuration and troubleshooting.
- Provided remote and on-site troubleshooting and fixes for a variety of hardware, primarily desktops and printers.
- Handled delegating and managing licenses through Microsoft Admin Center
- Managed servers creating an intranet that included NAS, DNS, CA, and proxy services utilizing Docker containers.

**Paid Internship Offensive Security Training** | Dr. Jacob Mack, PhD, MS, MBA, BS

January 2025-March 2025

- Served as Lead Paid Intern and Community Organizer, managing collaborative projects and fostering teamwork among participants.

- Conducted hands-on projects involving Microsoft Active Directory penetration testing, including red teaming (offensive security) and blue teaming (defensive security) activities.
- Specialized in NTLM authentication protocol, studying attack vectors to exploit networks utilizing NTLM.

**Geek Squad Consultation Agent** | Best Buy | Johnson City, TN

November 2022 – May 2023

- Provided technical support to clients, diagnosing and resolving hardware and software issues.
- Delivered clear and concise instructions to clients on how to resolve technical problems independently.
- Maintained a high level of customer satisfaction through effective communication and timely problem resolution.

## Projects

### Game Of Active Directory Project

- Configured a GOAD lab environment on Windows to simulate Active Directory infrastructure. Built a controlled environment for testing security tools and techniques.

### Active Directory Security Assessment Project

- Performed penetration testing on Active Directory using Responder and NTLMRelayX. Identified authentication vulnerabilities and demonstrated NTLM relay attacks, providing recommendations to improve security.

### CTF Challenge Writeups

- Reverse-engineered a .dll file using dotPeek to extract and decrypt an AES-encrypted flag. Employed CyberChef for decryption.
- Exploited vulnerabilities in a file storage system using Burp Suite, SQL injection, and encryption bit-flipping to access unauthorized files.

## Certifications and Training

- **CompTIA Security+ ce Certification**
- **Cybersecurity and IT Fundamentals Micro-Credentials**
- **Defender 302 Completion Credential** (Incident Response)
- **US Cyber Games Combine and Pipeline Programs** (CTF Training)

## Additional Information

- **Capture the Flag (CTF) Participation:**
  - National Cyber League (Fall 2023, Spring 2024, Fall 2024)
  - US Cyber Games Open, DOD Cyber Sentinel Challenge, Jersey CTF, NSA Codebreaker Challenge, CCDC, LACTF, DownUnderCTF, UIUCTF
- **Soft Skills:** Strong communication, leadership experience, problem-solving, adaptability, and teamwork.