

# Andrew Bak

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## EDUCATION

### Virginia Tech

Bachelor of Science

Major in Cybersecurity Management & Analytics

Cumulative GPA: 3.78/4.0

Relevant Coursework: Python, Operating Systems, Shell Scripting, Algorithms, Artificial Intelligence, Data Analysis

Blacksburg, VA

Expected December 2026

## WORK EXPERIENCE

### Qui Korean BBQ & BAR (Fast-paced, teamwork-driven, high-quality dining environment)

Chantilly, VA

Server

October 2022 – March 2023

- Delivered exceptional service in a high-volume restaurant, ensuring a favorable dining experience for 100+ guests daily
- Trained 2 new team members on company protocols, enhancing team productivity and service consistency
- Managed point of sale (POS) transactions fluidly while accurately processing payments

## UNIVERSITY PROJECTS

### USER AUTHENTICATION MONITOR - CYBERSECURITY

Blacksburg, VA

- Developed a Python-based tool to analyze login attempts, improving cybersecurity oversight

November 2024

Processed data to determine success rates, highlight frequent IP addresses, and identify failed attempts; streamlined detection of potential threats

### LINGUISTIC READABILITY ENGINE

Blacksburg, VA

- Engineered a file of English text and computed readability scores and word frequency statistics

October 2024

- Designed an interactive feature allowing users to check specific word appearances in the text

## CYBERSECURITY LABS (CompTIA Learn)

### Programming in Python

January 2025 - Present

- Web App Security: Detected and exploited SQL injection attacks
- Network Defense: Configured firewall rules and IPSec tunnels
- System Hardening: Applied Group Policy and permission controls to secure Windows systems
- Threat Detection & Response: Performed root cause analysis and vulnerability scans to identify system risks

## CAMPUS & COMMUNITY INVOLVEMENT

### CyberVT | Member

Blacksburg, VA

- Participated in bi-weekly workshops and advanced technical presentations, covering topics such as reverse engineering, binary exploitation, web application penetration testing, cryptography, and malware analysis
- Collaborated with peers and industry professionals in competing in cybersecurity events, including the annual SummitCTF competition and smaller interactive workshops

### Volunteer Tech Support

Centreville, VA

- Set up secure home networks for 2+ households (router configuration & device hardening)
- Built 5+ custom PCs tailored to gaming, productivity, and general use, ensuring optimal part compatibility
- Installed and reinstalled OSs (Windows/Linux), configured BIOS settings, optimized system partitions, removed malware infections, secured user accounts with strong authentication policies, and set up automated local backup solutions

## ADDITIONAL

**Technical Skills:** Python, MATLAB, Wireshark, Bash, Windows, Linux, Shell Scripting, Git, VS Code

**Concepts:** TCP/IP, Firewalls, System Hardening, File permissions

**Languages:** English (Fluent), Korean (Conversational)

**Professional Development:** CompTIA Security+ (in progress), AWS Certified Cloud Practitioner (in progress)