Andrew Woodlee

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linkedin.com/in/andrew-woodlee
github.com/Cybersshell

Education

University of Alabama in Huntsville, **MS** in **Cybersecurity (Engineering track)**   Jan 2025 – present

University of Alabama in Huntsville, **BS** in **Cybersecurity Engineering**   Aug 2019 – Dec 2024
- **Coursework**: Secure Software Development, Intro to Embedded Systems, Intro to Cybersecurity Engineering, Software Reverse Engineering, System Security, Network Security

Experience

Research Assistant II, The University of Alabama System Management and Production   June 2023 – July 2024
Center – Huntsville, Alabama
- Led Arduino programming for two Toy Fire trucks
- Added enhancements to the audio playback and movement of the truck
- Setup Linux on a Raspberry Pi for a PX 100 Robotic Arm that went on a STEM bus

Skills

Systems and Servers: Linux | C/C++ | Go | JavaScript | MongoDB | Python

DevOps: Git | CI/CD | Gitea | GitHub | Docker

Embedded Systems: ESP-32 | Arduino | MSP430

Web Development: HTML | JavaScript

Reverse engineering: IDA Pro | Ghidra

Electrical: Soldering

Certifications

Security+ Certified
Certified in March 2025

Projects

Backy (https://backy.cybershell.xyz)   Sept 2022 – present
- Used Go libraries to create a command execution tool
- Used Go's native SSH library to run commands over SSH
- Used Go libraries to create a YAML configuration
- Configuration of notifications on completion and failure

Home server with remote access   Sept 2022 – present
- Used WireGuard to access home server from VPS
- Hosted some web applications like Nextcloud
- Secured SSH access over VPN

Cloud server administration   Sept 2023 – present
- Hosted a mail server (https://stalw.art) uses FoundationDB as a backend
- Secured FoundationDB with TLS certificates
- Hosted many applications including Gitea, Linkwarden, and others using Docker
- Backed up data regularly and securely using Restic/Autorestic
- Used Backy to automate backups

Wallet Transformer Monitor   Sept 2023 – May 2024
- Senior Design Project that monitors a single-phase 120V transformer using an ESP-32 and a web dashboard
- Wrote ESP-32 code that interfaced with an energy sensing chip, temperature sensors, WiFi, and MQTT over SSL.
- Studied and assembled voltage and current sensing, full-bridge rectifier circuits safely

Digital Telepresence (https://git.digitaltelepresence.com/digital-telepresence/)   Apr 2022 – Mar 2024
- DTP is an online application suite for the web
- Helped to build a new system from the ground up
- Independently designed novel solutions with minimal guidance
- Service-oriented MVVM development and separation of concerns