# Andrew Woodlee

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github.com/Cybersshell

## Summary

Graduate of Cybersecurity Engineering at the University of Alabama in Huntsville. Proficient at developing a variety of applications including web platforms, Arduino projects, and tools and scripts. Able to comprehend new skills or programming languages efficiently and quickly. Hosts his own mail and web servers.

## 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

## Skills

**Electrical:** Soldering - Intermediate

**DevOps:** CI/CD - Intermediate | Git - Advanced | Gitea - Intermediate | GitHub - Intermediate | Docker - Intermediate

**Systems and Servers:** Linux - Advanced | C/C++ - Advanced | Go - Advanced | JavaScript - Advanced | MongoDB - Intermediate | Python - Advanced

**Web Development:** HTML - Intermediate | JavaScript - Advanced

**Embedded Systems:** ESP-32 - Advanced | Arduino - Advanced | MSP430 - Intermediate

**Reverse engineering:** IDA Pro - Intermediate | Ghidra - Intermediate

## 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

## Projects

**Home server with remote access**          Sept 2022 – present
- Used WireGuard to access home server from VPS
- Hosting some web applications like Nextcloud

**Cloud servers with backups**          Sept 2023 – present
- Hosting a mail server (https://stalw.art) uses FoundationDB as a backend
- Using FoundationDB secured with a TLS certificates
- Hosting many applications including Gitea, Linkwarden, and others in Docker
- Backing up data regularly and securely using Restic/Autorestic

**Backy (https://backy.cybershell.xyz)**          Sept 2022 – present

- Allows many commands to be run on many hosts.
- Allows easy configuration of executable commands
- Allows easy configuration of package management
- Allows for commands to be run on many hosts over SSH
- Commands can be grouped in list to run in specific order
- Configuration of notifications on completion and failure

**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

## Volunteer

**Cybersecurity Club at UAH**
- Attended CCDC qualifiers in 2024

## Awards

**Merit Tuition Scholarship**
- Awarded by UAH in 2019 (8K/year)