

# Andrew Woodlee

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linkedin.com/in/andrew-woodlee

github.com/Cybersshell

## Education

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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

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Research Assistant II, The University of Alabama System Management and Production Center – Huntsville, Alabama June 2023 – July 2024

- 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

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I use Linux daily, and have experience with C/C++, Go, and JavaScript. I administer servers daily, using Docker and Backy.

I have extensive experience using Git, Git hosting, and CI/CD pipelines to develop software, host code, and automate deployments.

My use of Embedded Systems platforms include ESP-32, Arduino, and MSP430.

My web development experience includes using HTML templating using Pug, a JavaScript library. I also used NodeJS for backend development.

During my time at UAH, I used IDA Pro and Ghidra for reverse engineering.

## Certifications

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Security+ Certified

Certified in March 2025

## Projects

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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/Autoreptic
- 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