

Andrew Woodlee

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github.com/Cybersshell

Education

University of Alabama in Huntsville, MS in Cybersecurity (Engineering track) Jan 2025 – present
• Current GPA: 4.0!!LINEBREAK!! - slated to obtain Summer 2026

University of Alabama in Huntsville, BS in Cybersecurity Engineering Aug 2019 – Dec 2024
• Secure Software Development, Embedded Systems, Cybersecurity Engineering
• Software Reverse Engineering, System Security, Network Security

Experience

Research Assistant II, The University of Alabama System Management and Production Center – Huntsville, Alabama June 2023 – July 2024
• Led Arduino programming for a project for City of Huntsville
• Includes developing enhancements for audio playback and kinetic movement of the project
• Linux Development for Jackson County Schools (Raspberry Pi for a PX 100 Robotic Arm) STEM project

Certifications

Security+ Certified
Current 701

Skills

Linux Expert, and am proficient with C/C++, Go, and JavaScript.

Server Admin / Docker

Efficient with Git/Git hosting to develop software and CI/CD pipelines for automated deployments.

Embedded Systems Development: platforms include ESP-32, Arduino, and MSP430.

Web development includes HTML templating using Pug, a JavaScript library. NodeJS for backend development.

At UAH, I use IDA Pro and Ghidra for reverse engineering solutions.

Extensive set of working abilities with IDS/IPS (Regional UAH Rep. Cyber Defense at CCDC)

Projects

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

Home server with remote access Sept 2022 – present
• WireGuard to access home server from VPS
• Hosting web applications like Nextcloud
• Secured SSH access over VPN

Cloud Server Administration Sept 2023 – present

- Hosting mail servers (<https://stalw.art>), FoundationDB as a backend
- Secured FoundationDB with TLS certificates
- Additional applications include Gitea, Linkwarden, and others using Docker
- Data backups are all secured using Restic/Autoreptic
- Developed Proprietary System *Backy* to streamline and automate, ensuring uptime, safety, and compliance

Wallet Transformer Monitor

Sept 2023 – May 2024

- Senior Design Project monitoring a single-phase 120V transformer (ESP-32 and a web dashboard)
- Wrote ESP-32 code that interfaced with an energy sensing chip, temperature sensors, WiFi, and MQTT over SSL.
- 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
- Collaborated building a new system from the ground up
- Designed novel solutions
- Service-oriented MVVM development and separation of concerns