Hamilton **Ferris**

LEAD STUDENT SYSTEMS ADMINISTRATOR

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Experience

Lead Student Systems Administrator   Winona, MN

WINONA STATE UNIVERSITY   2023 - Present

- Created, provisioned, and maintained Linux virtual machines, optimizing server performance and reducing Windows server load significantly.
- Mentored four student workers, boosting administration success and retention by 1.5 years.
- Automated certificate renewal processes, decreasing worst-case time to completion by up to 850%.
- Deployed firewall and proxy servers, enhancing network efficiency by freeing up to 20% of bandwidth.
- Implemented security fixes to strengthen system integrity and eliminate vulnerabilities.

Projects

Odisk

DESIGNER/DEVELOPER   June 2025 - Present

- Used the inotify library to monitor filesystem read/write events and format the output for internal API consumption.
- Built a custom INI parser to gain deeper insight into file parsing mechanics and enhance control over configuration handling.

Automatic Certificate Renewal

DESIGNER/DEVELOPER   Nov 2024 - Jan 2025

- Automated Let's Encrypt certificate renewal utilizing the Azure-DNS plugin for seamless domain validation, allowing multiple redundant scripts to be deleted.
- Optimized certificate renewal script with bash scripting, reducing total execution time by up to 850%.

SCVMM Checkpoint API

DEVELOPER   Febuary 2023 - May 2023

- Developed and integrated an internal SCVMM API to automate the creation and deletion of virtual machine checkpoints.
- Built a JSON API service using Flask, Waitress, and Python typing libraries for structured request handling.
- Implemented a PowerShell script to convert Python functions into SCVMM-compatible automation tasks.

My Resume

DESIGNER/DEVELOPER   July 2023 - Present

- Designed a fully customized resume using Typst libraries, incorporating personalized formatting and layout for professional presentation.
- Automated resume deployment by configuring GitHub Actions to generate and publish the latest PDF version to a designated release.

Skills

Languages	**C**, **Python**, Java, Bash, Nix
Developer Tools	Docker, Splunk, Hyper-V, Ansible, Git
Miscellaneous	Microsoft 365 Suite, Slack, LDAP

Education

Winona State University   Winona, MN

B.S IN COMPUTER SCIENCE   August 2022 - May 2026

Relevant Coursework

- Computer Systems
- Advanced Algorithms
- Networking / Telecommunication
- Advanced Database Management Systems