

Sean Rettig

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EDUCATION

Purdue University

Bachelor of Science in Computer Science, Minor in Mathematics

- Dean's List and Semester Honors every semester
- 3.74/4.00 GPA
- Entrepreneurship Certificate

Master of Science in Computer Science

West Lafayette, IN

Aug. 2021 – May 2025

Aug. 2024 – May 2026

RELEVANT COURSEWORK

- OO Programming
- Programming in C
- Computer Architecture
- Systems Programming
- Analysis of Algorithms
- Software Engineering
- Information Security
- Artificial Intelligence
- Data Mining & ML
- Data Structures & Algorithms
- Relational Databases

EXPERIENCE

Software Engineer Intern

Midcontinent Independent System Operator (MISO)

May 2023 – Present

Carmel, IN

- Automated Power System flowgate analysis using Python to decrease required steps by 66% to decrease complexity of coordinating on flowgates with other ISOs
- Implemented multithreading to increase throughput of studies by a factor of four
- Standardized study results into PostgreSQL database for future flowgate analysis
- Built python script to notify users about errors via Teams, Email, and Cherwell tickets
- Dockerized python script and deployed it to Kubernetes using helm charts

Software Engineer Intern

Purdue University

Dec. 2021 – May 2023

West Lafayette, IN

- Updated out-of-date .NET application dependencies
- Compiled information on internal application to improve documentation
- Packaged over 50 applications using Microsoft Endpoint Manager to simplify installation on over 5,000 machines
- Developed installation scripts connecting Endpoint Manager to a custom script for capturing logs
- Captured installation of 20 applications to be used with Apps Anywhere

PROJECTS

Home Lab | Proxmox Hypervisor, Linux, Docker, Ansible, Traefik

June 2020 – Present

- Established three server cluster to provide a virtualization platform using Proxmox Virtual Environment
- Stood up a game server, media server, and other self-hosted services using Linux virtual machines and Docker
- Developed Ansible playbooks to automate configuration of Debian cloud images
- Configured Traefik reverse proxy to provide external access for self-hosted applications with SSL certificates

Boilercraft Server | Linux, System Administration

Aug. 2022 – Present

- Managed and maintained multiple Minecraft servers for 70+ unique players
- Ensured server stability and resolved technical issues promptly
- Prioritized security by utilizing Oracle VM as a proxy for all server traffic
- Led a team of 6 to manage a discord server with 800+ members

Cybersecurity Club | Linux, Windows, Computer Networking

May 2018 – May 2020

- Competed in the AFA's Cyberpatriot competition achieving Gold Tier first year and Platinum Tier second and third year
- Co-founded the club, leading and creating materials for new members
- Specialized in implementing standard security practices for common linux programs

TECHNICAL SKILLS

Languages: Python, C/C++, Java, Bash, C#

Tools/Technologies: Git, Linux, Docker, Docker Compose, Pandas, VS Code, Visual Studio, IntelliJ, Jira, LaTeX