

SEAN RETTIG

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EDUCATION

Purdue University

Master of Science in Computer Science

West Lafayette, IN

Aug. 2024 – May 2026

Bachelor of Science in Computer Science, Minor in Mathematics

Aug. 2021 – May 2025

- Dean's List and Semester Honors every semester
- 3.77/4.00 GPA

RELEVANT COURSEWORK

- CS180: OO Programming
- CS240: Programming in C
- CS250: Computer Architecture
- CS252: Systems Programming
- CS381: Analysis of Algorithms
- CS307: Software Engineering
- CS526: Information Security
- CS571: Artificial Intelligence
- CS373: Data Mining & ML
- CS314: Numerical Analysis
- CS251: Data Structures & Algorithms
- CS448: Relational Databases
- CS502: Compilers
- CS525: Parallel Computing
- **Upcoming**
- CS580: Algorithm Design
- CS514: Numerical Analysis
- CS536: Computer Networks

EXPERIENCE

CS448: Relational Databases UTA

Aug 2024 – December 2024

Purdue University Department of Computer Science

West Lafayette, IN

- Answered student questions, debugged code, and helped explain project topics in PSOs
- Graded homeworks and exams
- Answered questions on Edstem

Market Operations Temp

May 2023 – May 2025

Midcontinent Independent System Operator (MISO)

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

Software Engineer Intern

Dec. 2021 – May 2023

Purdue University

West Lafayette, IN

- Updated out-of-date .NET application dependencies
- Packaged over 50 applications using Microsoft Endpoint Manager to simplify installation on over 5,000 machines

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 300+ unique players
- 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 CoFounder | Linux, Windows, Computer Networking

May 2018 – May 2020

- Competed in the AFA's Cyberpatriot competition achieving Gold Tier and Platinum Tier
- 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