

SEAN RETTIG

574-780-8143 | srettig@purdue.edu | [linkedin.com/in/sean-re/](https://www.linkedin.com/in/sean-re/) | github.com/izatwin

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
- 3.79/4.00 GPA

EXPERIENCE

Software Engineer Intern

June 2025 – Aug 2025

Klaviyo

Boston, MA

- Adapted flows pipeline using python/Django, Celery, RabbitMQ to shift actions from scheduled to immediate.
- Optimized the flow pipeline to execute actions in real-time, removing a worst-case 5-minute delay and off-loading DB writes from the web tier, which reduced web-app latency to < 100ms
- Built a responsive UI button in React/Typescript for per-row "Send Now" actions with optimistic front-end updates
- Implemented test suites (Pytest + Jest), boosting code coverage from 0% to greater than 80% in some cases.
- Automated infrastructure with Terraform to provision an EC2 autoscaling group that dynamically scales RabbitMQ workers from 1 - 3 instances, handling traffic spikes without manual intervention.
- Led weekly chapter discussions about Designing Data Intensive Applications best practices with 4-8 engineers.

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
- Dockerized python script and deployed it to Kubernetes using helm charts

Software Engineer Intern

Dec. 2021 – May 2023

Purdue University

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- Updated out-of-date .NET application dependencies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

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
- Managed and maintained multiple Minecraft servers for 300+ unique players

TECHNICAL SKILLS

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

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

RELEVANT COURSEWORK

- | | | | |
|-------------------------|--------------------------|------------------------|--------------------------------|
| • OO Programming | • Systems Programming | • Information Security | • Data Structures & Algorithms |
| • Programming in C | • Analysis of Algorithms | • Parallel Computing | • Relational Databases |
| • Computer Architecture | • Software Engineering | • Data Mining & ML | |