

Ryan Kilpadi

Cambridge, MA | github.com/rkilpadi | <https://ryan.kilpadi.com>

EDUCATION

Vassar College

B.A. in Mathematics, Minor in Computer Science

Major GPA: 3.9/4.0

Poughkeepsie, NY

Aug 2021 – May 2025

Université Paris Cité

Study abroad semester in French – Mathematics and Computer Science

Paris, France

Sep 2024 – Dec 2024

PROFESSIONAL EXPERIENCE

Amazon Web Services

Boston, MA

Software Engineer Intern | AWS Parallel Computing Service, High Performance Computing *May 2024 – Aug 2024*

- Contributed to the launch of a product featuring highly complex architecture, leveraging dozens of AWS services
- Designed and implemented a solution in **Java** to update cluster Slurm configuration stored on **Docker** containers
- Orchestrated creation of required AWS resources using AWS CDKs in **TypeScript**
- Delivered comprehensive integration and unit tests using **Jest**, **JUnit**, and **Mockito** to achieve 100% coverage
- Developed scripts in **Python** and **Bash** to streamline developer experience, cutting deployment time by up to 90%

Amazon Web Services

Boston, MA

Software Engineer Intern | AWS ParallelCluster, High Performance Computing *May 2023 – Aug 2023*

- Scoped, designed, and implemented a solution to support the Spack package manager on HPC clusters, reducing install times for large software packages from hours to seconds
- Automated seamless creation and configuration of AWS Services such as **API Gateway**, **Lambda**, and **S3**
- Gained hands-on **Linux** expertise through managing packages, users, and compilers using **Chef** automation
- Developed a **Python**-based CLI tool and co-authored an official customer-facing [AWS blog post](#) to showcase interaction with the Slurm REST API, enhancing visibility for the previous year's project

Amazon Web Services

Seattle, WA

Software Engineer Intern | AWS ParallelCluster, High Performance Computing *Jun 2022 – Aug 2022*

- Engineered a full-stack job submission solution by enabling the Slurm REST API on HPC clusters
- Implemented solution in a frontend using **React** and **TypeScript** and wrote tests using **Jest**
- Expanded REST API endpoints in a **Flask** backend and wrote tests using **Pytest**
- Enhanced security by automating JWT authentication and **NGINX** configuration as a secure reverse proxy

Vassar College

Grading Assistant | Mathematics Department

Poughkeepsie, NY

Aug 2023 - Feb 2024

- Graded weekly homework and exams for over 30 students in Linear Algebra and Number Theory

INDEPENDENT PROJECTS

EduDine | *Java/Kotlin, Swift, Gradle, Git*

- Developed an Android application for Vassar's dining services in Java
- Implemented web scraping to display menu data from the official dining website
- Migrated to Kotlin Multiplatform and added support for iOS using Swift
- Expanded app to support hundreds of schools on multiple different dining networks

Portfolio Website | *Svelte, Vite, p5.js, Git*

- Deployed an dynamic portfolio website using SvelteKit
- Designed an interactive p5.js background simulation with a Perlin noise field

SKILLS

Programming Languages: Java, Python, JavaScript/TypeScript, HTML/CSS, Ruby, Go, Bash

Technologies and Tools: Git, Linux, AWS, Docker, MongoDB, React, Chef.io, Jenkins

Languages: French