

# Ryan Kilpadi

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## EDUCATION

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### Vassar College

*B.A. in Applied Mathematics, Minor in Computer Science*

**Major GPA:** 3.94/4.00

Poughkeepsie, NY

*Aug. 2021 – May 2025*

## PROFESSIONAL EXPERIENCE

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### 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
- Gained hands-on **Linux** expertise through managing packages, users, and compilers using **Chef** automation
- Automated seamless creation and configuration of **AWS** Services such as **API Gateway**, **Lambda**, and **S3**
- 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
- Exceeded expectations by delivering two major projects within the timeframe of one

### 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 cluster creation
- Validated solution on six different **Linux** distributions and dozens of instance types
- Extended functionality of a **React**-based frontend 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
- Exceeded expectations by completing initial project to enable Slurm REST API in one-third of allocated time

### Vassar College

Poughkeepsie, NY

*Linear Algebra Grading Assistant | Mathematics Department*

*Aug 2023 - Present*

- Grade weekly homework and exams for over 30 students

### Vassar College

Poughkeepsie, NY

*Regional and International Programs Assistant | Alumni Office*

*Sep 2021 - May 2022*

- Managed event logistics by coordinating guest lists and ensuring accuracy in attendee information
- Traveled to New York City to facilitate large alumni events by actively engaging with attendees

## INDEPENDENT PROJECTS

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### EduDine | *Java/Kotlin, SwiftUI, 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
- Designed new features such as adding favorites and filtering items by dietary restriction
- Migrated to Kotlin Multiplatform and enlisted a friend to help build support for iOS using SwiftUI
- Expanded app to support hundreds of schools on multiple different dining networks

### Portfolio Website | *SvelteKit, Node.js, Vite, Vercel, p5.js, Git*

- Deployed an dynamic portfolio website using SvelteKit (see link at top right)
- Designed an interactive p5.js background simulation using a Perlin noise field

## TECHNICAL SKILLS

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

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

**Languages:** French (Conversational)