

Xavier Silva

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Education

Kalamazoo College

Bachelor of Arts, 2024

Mathematics and Computer Science double major

GPA: 3.988

Recognitions: Honors in Mathematics (*summa cum laude*), Heyl Full Tuition Scholarship, Phi Beta Kappa

Relevant Projects:

Icosahedral Virus Transitions (Senior Thesis)

- Developed a multi-threaded, high-performance data analysis algorithm in Python to understand how certain viruses transform over time.
- Created comprehensive technical documentation for research mentors to continue research.
- Presented research findings to the Kalamazoo College Board of Trustees.
- Nominated speaker at the 2023 West Michigan Regional Undergraduate Science Research Conference with over 150 in attendance.

HornetHQ 2.0 Prototype

- Developed React-based prototype for course selection system with simulated SQL back-end.
- Collaborated in an Agile team of 12+ using RESTful APIs and Git workflow.

Relevant Coursework:

Advanced Software Development (*Agile development, software testing, SDLC principles*)

Data Science, Machine Learning (*Python, scikit-learn, data analysis, AI models*)

Budapest Semesters In Mathematics, Hungarian Study Abroad

2022

- Advanced mathematics program that provides an opportunity for North American students to learn mathematics in the Hungarian tradition.

Experience

Webmaster Assistant - North American Guild of Change Ringers (Volunteer)

2025 - Present

- Manage and enhance the organization's website (www.nagcr.org) using Webflow, focusing on usability, accessibility, and mobile responsiveness.
- Collaborate with leadership to publish timely updates, event announcements, and member communications.

Teaching Assistant - Kalamazoo College Mathematics Department

2023 - 2024

- Created learning environments that encourage student's critical thinking.
- Conducted weekly independent office hours to guide students towards optimal solutions.
- Delivered accurate and concise feedback to over 20 students, facilitating significant improvements in mathematical proof writing.

Mathematics Departmental Student Advisor - Kalamazoo College

2023 - 2024

- Served as an academic role model by representing the mathematics department in a faculty-appointed position.
- Navigated College systems to provide helpful guidance to peers on course planning, class registration, major exploration, and academic success.

Skills

Computer Languages: Java, C++, Python, HTML, CSS, JavaScript, React, Bash, SQL

Software Development: SDLC, Agile, Git/GitHub, Test-Driven Development (TDD)

Operating Systems & Tools: Linux, MacOS, Windows, LaTeX, Microsoft Office, Google Suite

Data Science & Analytics: scikit-learn, Machine Learning, Data Visualization, R

Computer Hardware: PC Building, Computer Networks

Community Involvement

Freelance Percussionist at Local Theatres

2024 - Present

- Recent performances include *The Addams Family* at the Barn Theatre and *Little Shop of Horrors* at the Festival Playhouse (Kalamazoo College).

Percussion Instructor at Portage Northern High School

2023 - 2024

- Facilitated a learning environment for over 30 students at a professional level.

North American Guild of Change Ringers Member

2022 - Present

- Jeff Smith Young Ringer Award 2024