

Cristina Lopez Mendoza

South Hadley, MA 01075

+1 (207) 437 8006 · lopez33c@mtholyoke.edu

LinkedIn: www.linkedin.com/in/cristina-lopez-mendoza-a01095299

GitHub: <https://github.com/CristinaMendoza3077>

EDUCATION

Mount Holyoke College, South Hadley, MA

Bachelor of Arts in Computer Science & Film, Media, and Theater – May 2027

GPA: 3.98 / 4.0

Honors: Sarah Williston Scholar (Top 15% of my class)

Bachillerato de la Universidad Autónoma de Aguascalientes, Mexico

High School Diploma – Jun 2022

GPA: 9.98 / 10

Honors: Graduated with the highest GPA of my class.

RESEARCH & ACADEMIC EXPERIENCE

Computer Science Department, Mount Holyoke College

Teaching Assistant & Tutor – Data Structures (CS 205) Jan 2025 - Present

- Guided students through labs and complex data structure concepts.
- Held weekly tutoring sessions and developed review materials to support student success.
- Assisted professors with course organization and learning support.

AI4ALL Research Program – Online

Researcher & Team Lead – Aug 2024 - Mar 2025

- Led a research team developing a machine learning model for early breast cancer detection.
 - Trained logistic regression and other ML models on the Wisconsin Breast Cancer dataset to classify tumors.
 - Presented a research poster on model performance and early detection strategies.
 - Managed collaborative GitHub repository and coordinated team contributions.
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TECHNICAL EXPERIENCE

Google Developer Groups MHC

Associate Developer – Sep 2024 - May 2025

- Developed a to-do application with email reminders using Python, Node.js, and JavaScript.
 - Designed backend architecture and implemented data structures to improve performance and usability.
 - Collaborated with a team using agile development practices.
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RELEVANT PROJECTS

Robot Assistant Pill Reminder – Independent Study, Mount Holyoke College

Researcher & System Designer – Sep 2025 - present

- Built a functional assistant robot using Arduino, sensors, and buzzers to help older adults remember their medication intake.
- Designed a system to adapt to the user's needs, adjusting alerts, timing, and interaction based on the user's behavior.
- Focused on accessible and user-centered design, creating a robot that is reliable and understandable.

Autonomous Maze Navigation and Parking Robot – Mount Holyoke College

Algorithm & System Designer – Feb 2025 - Mar 2025

- Designed and trained a mobile robot to navigate a dynamic maze and park in different locations under a 7-minute time limit.
- Implemented path exploration, collision avoidance, and adaptive behavior through iterative testing.
- Gained experience with autonomous decision-making and reinforcement-learning behaviors.

Multi-Robot Communication System: “Ice Cream Shop” Project – Mount Holyoke College

Algorithm Designer – Mar 2025 - May 2025

- Developed a Bluetooth-based multi-robot system in which one robot received user orders and transmitted them to a partner robot that prepared the item.
- Designed communication protocols and coordinated multi-step tasks under a seven-minute time limit.
- Implemented iterative testing to reduce delays and improve cooperation between agents.

AI Breast Cancer Detection Tool

Researcher & Team Lead – Jun 2024 - present

- Developed ML models in Python and C++ for tumor classification.
- Worked with Mexican specialists to design an accessible diagnostic support tool.

Mental & Spiritual Wellness App & Video Game

Software Developer & Designer – Jun 2024 - present

- Developed an app and Unity-based game providing guided meditation and emotional wellness resources with Java.
- Led UI/UX design to improve user engagement.

Interactive Video Installation (Processing)

Software Developer & Designer – Mar 2025 - May 2025

- Created an interactive animation of a seasonal tree reacting to colored flowers using physical-digital interaction techniques.
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COMMUNITY & CULTURAL ENGAGEMENT

Early Childhood Art Instructor (Summer Program)

Instructor for ages 3 - 7 – Jul 2025 - Aug 2025

- Designed and taught classes in sign language, music, and theater.
- Created lesson plans, hands-on activities, and accessible learning materials.
- Supported emotional development and communication skills.

Founder & President – MHC Film Club

Jan 2025 - present

- Created the college's first student film club. Developed the structure for weekly workshops and production meetings.
- Planned short-film projects, including shooting schedules, crew roles, and post-production workflows.
- Worked on student engagement through collaborative events and submitted films to festivals.

Engineering & Social Impact Project (Volunteer)

Mechanical Design Volunteer – Jan 2020 - Jun 2020

- Built and deployed street food dispensers for stray animals using simple mechanical systems.
 - Led placement and maintenance efforts to support animal well-being in the community.
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CERTIFICATIONS

- AI4ALL – Certificates of Completion (2 semesters), 2024-2025
 - Grasshopper – Automation & Visual Programming Course, 2020
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TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, HTML, CSS.

Tools & Frameworks: Node.js, Pandas, Arduino, Unity, Tkinter, Git, Processing.

Concepts: Algorithms, Data Structures, Machine Learning, OOP, Multi-Agent Systems, Logistic Regression, Reinforcement Learning.

LANGUAGES

- Spanish: Native.
 - English: Fluent.
 - Italian: Advanced.
 - French: Intermediate.
 - German: Beginner.
 - Korean: Beginner.
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DECLARATION & SIGNATURE

I confirm that the information provided above is accurate to the best of my knowledge.

South Hadley, MA — 2025 Cristina Lopez Mendoza