

VERA SONG

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EDUCATION

Bates College, Lewiston, Maine

Bachelor of Science in Chemistry, Minor in Earth and Climate Sciences

Expected Graduation May 2027

Relevant Coursework: Climate Solutions Workshop, Tectonics Hazards/Lab, GIS Mapping Systems, Environmental Science, Earth Sciences Methods: data to Discovery, Sedimentary processes/Lab, Earth/Materials Labs, Environment and Society, Lives in Place, Introduction to R Code, Introduction to Python, General Chemistry, Organic Chemistry, Analytical Chemistry,

Skills: GIS (ArcGIS Pro, QGIS), Survey123, R Python, Microsoft Office Suite, Social Media Platforms, Sedimentary Sampling, Drones, Ground Penetrating Radar, Real Time Kinematics, Spectroscopy, U-V Vis, Centrifuge, Titrations, Gravimetric Analysis, Grab Sampling,

PROFESSIONAL EXPERIENCE

Remaine Internship Maine Indoor Air Quality Council

September 2025-Present

Communications Intern

- Developed and managed content for newsletters, social media, and public outreach campaigns to raise awareness about indoor air quality and environmental health.
- Drafted reports, press releases, and educational materials for diverse audiences, translating technical environmental information into accessible language.
- Assisted in planning and coordinating workshops, webinars, and community events to engage stakeholders and the public.
- Collaborated with team members to implement communications strategies, track engagement metrics, and improve outreach effectiveness.
- Gained hands-on experience in environmental health, public communications, and community engagement.
- Worked primarily remotely with limited supervision, demonstrating strong time management and self-direction while meeting deadlines for newsletters, social media content, and outreach campaigns.

Seaside Sustainability

June 2024- December 2025

Green Scholars

- Developed student-facing tools (timelines, budgets, impact trackers) to support community-based sustainability projects.
- Designed digital multimedia content, including videos, interactive tutorials, and graphic materials using Canva/Adobe Creative Suite, enhancing engagement for remote audiences, skills needed for preparedness flyers, checklists, and social media graphics.
- Collaborated with curriculum writers and environmental scientists to integrate systems thinking, climate resilience, and equity into learning modules.
- Conducted research on youth civic engagement and environmental education to ensure accurate, inclusive, and standards-aligned curriculum.
- Revised curriculum and developed assessment tools to track student outcomes and project impact.
- Created educator support materials, including lesson guides, FAQs, and professional development resources.
- Supported partnerships with schools and community organizations for curriculum implementation and feedback.

MiRCore

March 2024-Present

Environmental Researcher

- Preparing to co-author research reports and present findings at the MiRCore symposium, creating accessible visualizations and messaging to communicate complex environmental data to diverse audiences, including technical experts, community stakeholders, and the general public.
- Conducting independent data analysis and synthesizing findings from surveys and interviews to identify key insights on the environmental effects of herbicides on human genetics for environmental data analysis and synthesizing field survey data. .

- Collaboratively designing a study on ecotoxicology, analyzing the effects of herbicides and pollution on animals' genetic makeup of neurons, and collecting biological samples for analysis.

Fermi Lab

July 2024- August 2024

Ecological Monitor

- Developed and implemented standardized field protocols for environmental data collection, ensuring consistency across multiple sampling sites while adapting methodologies to varying field conditions and ecosystem types.
- Conducted 15 ecological surveys across 1,200 acres, collecting data on 40+ plant species and monitoring seven snake populations. Performed quadrat vegetation surveys in restoration plots and wetlands, identifying 52 plant species and showing a 30% increase in native species. Used GPS and GIS (Trimble GPS, ArcGIS Pro) to track and document environmental conditions.
- Collaborated with research scientists to integrate data into Fermilab's long-term database, creating 5 GIS layers for habitat management. Maintained precise records under extreme weather conditions, adapting sampling methods to ensure data accuracy..
- Developed and implemented standardized field protocols for environmental data collection and energy efficiency monitoring, ensuring consistency across multiple sampling sites while adapting methodologies to varying field conditions - skills directly applicable to clean energy project implementation and monitoring.
- Mapped invasive species and trail conditions, creating distribution maps to guide stewardship efforts and prioritize volunteer activities. Assisted in maintaining 2.5 miles of trails, installing erosion structures, clearing plants, and enhancing trails.

Androscoggin Watershed Council

June 2025-Present

Water Monitor

- Coordinated with staff and volunteer teams to schedule sampling events and maintain consistency across multiple monitoring sites, demonstrating ability to work independently while collaborating effectively with community members.
- Documented field observations in detailed logs and digital reporting systems, ensuring data accuracy and attention to detail for long-term watershed assessments used in public education.
- Use handheld meters and field test kits to measure water temperature, pH, dissolved oxygen, turbidity, and conductivity, ensuring accurate in-field data collection, ensuring accurate data collection using protocols similar to energy efficiency auditing and HVAC system diagnostics.
- Collect and properly label water samples following AWC's chain-of-custody procedures; transport samples under temperature-controlled conditions to certified laboratories for analysis, following strict safety protocols and environmental guidelines during field sampling to protect personal safety and maintain data integrity; critical skills for weatherizations and clean energy installation work. s.
- Coordinate with AWC staff and volunteer teams to schedule sampling events and maintain consistency across monitoring sites, and follow all safety protocols and environmental guidelines during sampling to protect personal safety and preserve sample integrity.
- Contribute to long-term watershed health assessments by providing reliable data used in pollution tracking, habitat restoration planning, and public education to schedule sampling events and maintain consistency across multiple sites, showing collaboration by coordinating with technical teams and volunteer staff.

RELEVANT EXPERIENCE

U.S. Government Accountability Office

January 2024-July 2025

- Conduct environmental research, interview stakeholders, scope methodology, and draft reports for Congressional requesters.
- Observed and participated in coordinating Zoom discussions with a team of eight students, learning how communication strategies are designed and executed in a professional setting to ensure effective collaboration and progress in research projects.
- Conduct environmental research, interview stakeholders, scope methodology, and draft reports for Congressional requesters.
- Shadowed team members in collaborative efforts, observing how GAO professionals work with stakeholders and analyzing research data to produce actionable insights and reports to improve government practices and accountability.
- Learned how GAO professionals approach the evaluation of government programs and policies, observing the methodology

behind their assessments and contributing to discussions on how to ensure transparency and efficiency.

NOAA Job Shadow

March 2024

- Completed 100-hour professional development experience shadowing 10 NOAA marine biologists, actively participating in ecological monitoring of Gulf of Maine coastal ecosystems, weekly water quality sampling at five designated sites, and gaining hands-on experience with established field protocols and technical equipment directly applicable to clean energy monitoring and environmental assessment work
- Engaged in discussions about climate impact assessment methodologies and conservation strategies with experienced environmental scientists, gaining insights into collaborative research projects between government agencies and local environmental organizations, as well as learning trail and habitat management strategies in environmentally sensitive areas - knowledge essential for clean energy workforce development and community-based sustainability initiatives

Commonwealth of Massachusetts EOA

March 2024-March 2025

- Shadowed GIS specialists to observe the process of creating and maintaining geospatial data, learning how GIS software is used to generate accurate maps and spatial analyses for environmental, urban planning, and governmental projects.
- Learned how GIS data is collected, processed, and integrated into mapping systems, including using GPS, remote sensing, and aerial imagery for accurate spatial representation.
- Participated in developing and presenting GIS-based reports and visualizations to stakeholders, learning how to effectively communicate complex spatial data through clear, accessible maps and dashboards.

Triumvirate Job Shadow

January 2024-June 2025

- Observed environmental professionals managing 200+ acres of conservation land, supporting trail maintenance, habitat restoration, and invasive species control aligned with sustainable land management goals.
- Contributed to identifying strategies for reducing industrial environmental impact, learning how clean energy and waste reduction can be integrated into operational decision-making.
- Shadowed senior staff during client meetings, learning the economic feasibility of implementing environmentally friendly practices in manufacturing, waste management, and construction industries by contributing to developing financial strategies for reducing the environmental impact of industrial operations for resource management solutions.

ENVIRONMENTAL LEADERSHIP & COMMUNITY ENGAGEMENT

Accelerate Climate Solutions Intern

July 2024- August 2024

- Headed and managed 20 high school students and created over 25 environmental guides for all ages, demonstrating leadership and educational outreach skills.
- Fundraised, staged, and taught at an environmental fundraiser that raised over \$2,100 for local conservation projects.
- Collaborated with the cofounder and 3 Illinois state legislators on the bill for the requirement of environmental education, collaborated closely with organic farmers, sustainable fashion brands, and schools for garden initiatives.
- Engaged community members through workshops and demonstrations on sustainable gardening practices and native plant benefits.
- Coauthored and wrote three successful grants in support of creating four community gardens and developing proposal writing and project planning skills.
- Shadowed client meetings focused on energy consumption analysis and solar panel research, gaining exposure to renewable energy assessment methodologies and energy efficiency planning strategies used in clean energy project development and implementation
- Co-designed and implemented three sustainable gardens incorporating over 15 native plant species, creating educational signage and waste management solutions.

Founder and president of Club: Plant Futures

January 2025-Present

- Founded and led the Plant Futures Club as a student-led NGO initiative focused on environmental sustainability, aiming to raise awareness about plant conservation, sustainable agriculture, and climate change mitigation through plant-based

solutions.

- Collaborated with local stakeholders, including government officials and community leaders, to advocate for policies supporting the region's plant-based conservation and sustainable agriculture practices.
- Coordinated with local NGOs and environmental organizations to promote educational events and collaborative sustainability efforts, including workshops on biodiversity conservation, plant conservation strategies, and urban gardening.
- Led educational campaigns, including social media outreach, newsletters, and public awareness campaigns, to engage the public in plant conservation and sustainable agriculture practices.
- Led an independent food waste reduction research initiative, conducting data analysis to identify waste patterns and creating a comprehensive report with actionable reduction strategies, demonstrating technical analysis and problem-solving skills valued in clean energy assessment and implementation projects.
- Provided mentorship and leadership to new members, guiding them in the development and execution of sustainability projects and fostering a sense of environmental responsibility and community involvement.
- Led student NGO focused on sustainability, advocating for climate-resilient agriculture and plant-based solutions that support carbon reduction strategies.

Cumberland Soil and Water District Intern

June 2025-August 2025

- Created interactive maps and stakeholder communication materials using ArcGIS Online and design software, coordinating with municipal contacts and developing public outreach content that increased community engagement, skills that are essential for clean energy project communication and community partnerships
- Completed comprehensive field safety and data collection training, then conducted environmental surveys at 15 parks across 14 communities using professional GPS equipment (Trimble GeoExplorer, Leica total stations) to collect high-accuracy spatial data, technical skills that are directly applicable to clean energy site assessment and weatherization project planning
- Processed and analyzed spatial data using industry-standard GIS software (ArcGIS Pro, QGIS), performing advanced analyses and automating workflows with Python programming, improving data processing efficiency, and demonstrating technical proficiency valued in clean energy monitoring and assessment roles.
- Contributed to regulatory compliance reporting by synthesizing field data and community feedback to meet state environmental standards, while gaining exposure to interdisciplinary project management, grant writing, and educational outreach strategies used in the environmental and clean sustainability workforce.

Environmental Representative

June 2025-Present

- Coordinate and mentor student volunteers, faculty, and staff while managing garden improvement projects, cultivating a culture of environmental stewardship, and providing hands-on learning opportunities essential for clean energy workforce development and community engagement
- Created visually engaging social media graphics, infographics, and digital flyers to promote environmental awareness campaigns, demonstrating graphic design skills essential for developing emergency preparedness outreach materials
- Conduct carbon footprint calculations and energy efficiency assessments for campus sustainability initiatives, analyzing energy consumption patterns and developing recommendations for reducing environmental impact through improved resource management and energy conservation strategies.
- Lead stewardship and sustainable management of campus garden spaces, overseeing maintenance, planting, and care of gardens across campus while focusing on soil health, seasonal planting cycles, and resource efficiency practices aligned with clean energy and sustainability workforce development
- Design and implement native pollinator gardens and water conservation initiatives to increase campus climate resilience and reduce irrigation energy use, demonstrating practical application of environmental solutions that support broader sustainability and energy efficiency goals
- Collaborate with academic departments and campus sustainability offices to integrate garden projects into educational programs and institutional sustainability goals, developing cross-departmental coordination skills valued in clean energy organizations and municipal partnerships.