

# Marie Ann Caiola

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## Education & Training

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**Vanderbilt University**, Peabody College, Nashville, TN *Aug 2020 – Present*  
Double Major: *Law, History, & Society, Cognitive Studies*  
Minor: *Quantitative Methods*  
Cumulative GPA: 3.87/4.0

**The Council on International Educational Exchange**, Paris, France *Jan 2023 – May 2023*  
Relevant Coursework: *Political Science & History*

**Charles E. Jordan High School**, Durham, NC *Aug 2016 – May 2020*  
*Summa Cum Laude*  
Jun 2019 – Aug 2019

**Universidad Autónoma Benito Juárez de Oaxaca**, Oaxaca City, México *Jun 2019 – Aug 2019*  
Relevant Coursework: *Spanish Language & Grammar*

## Professional Experience

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**Environmental Protection Specialist I**, Environmental Protection Agency, Washington, DC  
*June 2023 – Present*

- Assist the Data Gathering and Analysis Division within the Office of Pollution Prevention and Toxics at the Environmental Protection Agency with annual Toxic Release Inventory (TRI) analyses
- Employ ArcGIS Online to map TRI-reporting industrial facilities that implement pollution prevention (P2) strategies with a focus on the most efficacious activities - material substitutions and modifications, product modifications, process and equipment modifications - from 2017 to 2021
- Overlay demographic data with geospatial TRI data in a GIS environment to understand environmental justice implications

**Undergraduate Research Assistant**, Vanderbilt University Drinking Water Justice Lab, Nashville, TN  
*Oct 2020 – Present*

- Employ QGIS and ArcMap to construct community water system estimated service area boundaries in Tennessee as part of the Tennessee Community Water Systems Estimated Service Area Service Boundary (CWS ESAB) Digitization Project
- Implement data visualization strategies to analyze this collected data to inform the creation of environmental policy and investigate health outcomes regarding access to clean water

**Water Policy Intern**, Environmental Policy Innovation Center (EPIC), Washington, D.C.  
*May 2022 – Aug 2022*

- Assisted the Water Team's lead-free drinking water initiatives
- Employed GIS to construct a "living" StoryMap documenting the [Lead-Free Water Challenge](#)
- Researched and wrote blogs pertaining to lead in drinking water
- Created a comprehensive report detailing active players involved in lead service line replacement

## **Tutor Manager**, Amikka Test Prep, Coral Gables, FL

Feb 2021 - Aug 2021

- Daily supervision of tutors: evaluated quality of test prep material; coordinated and assessed performance
- Monitored the progression of student learning outcomes
- Collected, analyzed, and disseminated tutoring data, including tutors' success rates and average student score improvements

## **Food Runner**, Cucciolo Osteria Durham, Durham, NC

Aug 2019 - Aug 2021

- Created a system to organize order tickets at the window
- Assisted customer-facing duties and delivered customers' orders
- Maintained a clean and safe working environment

## **Presentations**

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(^ indicates data-based work)

- ^ **Caiola, M.**, Kim, A., & McDonald, Y. (2022, March 30). *Tennessee Community Water Systems Estimates Service Area Boundary Digitization Project* [Peer-reviewed poster presentation]. 2022 New Horizons in Conservation Conference, New Haven, CT (virtual).
- ^ Anderson, K. & **Caiola, M.** (2022, March 9). *Key Findings from the Tennessee Community Water Systems Estimated Service Area Boundary Project*. 2022 Tennessee Association of Utility Districts Technology Conference, Knoxville, TN.

## **Licensure & Certifications**

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CITI Community-Engaged and Community-Based  
Participatory Research Certification #43240650

Sep 2021 - Present

## **Leadership Experience**

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**Lead of the Digitization Team**, Vanderbilt University Drinking Water Justice Lab

May 2021 - Present

- Responsible for coordinating workflow within the digitization team: conduct lab trainings in ArcMap; assign weekly digitization assignments; host meetings and check-ins; compile a weekly inventory via RStudio for stakeholders
- Directly collaborate with the Tennessee Department of Environment and Conservation (TDEC), Tennessee Department of Health (TDH), and the Tennessee Association of Utility Districts (TAUD)
- Monitor, document, and disseminate information regarding progression of the Tennessee Community Water Systems Estimated Service Area Boundary (CWS ESAB) Digitization Project

**President of Public Service**, Vanderbilt Women in Government

Apr 2022 - May 2023

- Responsible for coordinating workflow and managing morale within the Public Service Committee
- Plan, organize, and host two signature events (informational roundtable of choice and Women Behind the Campaign Panel)
- Organize and produce "Instagram Takeovers" to highlight women in public service on the Vanderbilt Women in Government Instagram

- Foster meaningful relationships with local NGOs, service organizations, and public servants to get Vanderbilt women out into Nashville

**Director of Finance**, Vanderbilt University Relay for Life

*Jan 2021 - May 2022*

- Oversaw club-related financial activities: budgeted and allocated funds for all subcommittees; reported on financial status; worked to improve financial efficacy

**Special Recognition & Honors**

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2nd Place, Poster Presentation, New Horizons in Conservation Conference, Yale University (2022)

Dean’s List, Vanderbilt University (*All Semesters to Date*)

Peabody Honors Scholar, Vanderbilt University (*Aug 2020 - Present*)

Mina Latimer Lanham Scholarship Recipient, Vanderbilt University (*Aug 2020*)

Presidential Volunteer Service Award, AmeriCorps (2019)

Commissioner’s Service Award, Durham County Board of Commissioners (2019)

Volunteer of the Month, Communities in Schools in Durham (2019)

**Service & Activities**

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**Advocacy Work:**

Vanderbilt Student Government, VSAAP Committee Member *2022 - Present*

Dores Divest, Student Advocate *2021 - Present*

Project Safe at Vanderbilt University, Liaison *2022 - 2022*

Panhellenic Diversity, Equity, and Inclusion (DEI) Committee, Member *2020 - 2022*

**Community Outreach:**

EmbrACE Afterschool Program, Mentor *2020 - Present*

SEED Madagascar, Environmental Conservation Volunteer *2023 - 2023*

Vanderbilt Student Equal Access Center, Volunteer Notetaker *2022 - 2022*

Outreach4Durham Tutoring, Volunteer *2020 - 2020*

Eno Valley Elementary School Afterschool Program, Teaching Assistant *2018 - 2020*

**Skills**

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ArcGIS Products, Google Suites, Microsoft Office, Organizational Skills, Python, RStudio, Spanish Language, SPSS, Written Communication

**Research Interests**

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Community-engaged research; Environmental Justice; Geospatial analysis; Policy-oriented solutions; Water equity and accessibility

**Relevant Coursework**

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Applied Programming w/ Python (CS 1100), Data Science (DS 1000), Principals of Experimental Design (PSY 2150), Psychometric Methods (PSY-PC 3722), Statistical Analysis (PSY-PC 2120)