Ann Mathew

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EDUCATION

Vanderbilt University | School of Engineering   **Nashville, TN**

Bachelor of Science; Majors in Computer Science, Climate & Environmental Studies   *Anticipated 2026*

- Dean's List: Fall 2023, Spring 2024
- **Relevant Coursework:** Intermediate Software Design | Algorithms | Program Design & Data Structures | Discrete Structures | Digital Systems | Programming & Problem Solving in Java | Computers and Ethics | Linear Algebra | Calculus III | Calculus II | Business, Civil Society, and the Environment | Religion and Climate Change | Earth & Atmosphere | Foundations of Climate Studies

University of Virginia | CET Siena [Study Abroad Program]   **Siena, IT**

Instruction in Computer Science, Climate & Environmental Studies, Italian   *January 2025 – May 2025*

- Relevant Coursework: Artificial Intelligence | Operating Systems | Database Management Systems | International Oil and Energy Policy | Introduction to Italian Language and Culture

SKILLS

- Languages & Frameworks: Python (Pandas, GeoPandas, sklearn, TensorFlow, PyTorch), Java, C/C++, SQL, Flask, HTML/CSS
- Tools & Platforms: Git/GitHub, Linux/Bash, Tableau, QGIS, Figma, Agile Development, Notion, G Suite, Microsoft 365

PROFESSIONAL EXPERIENCE

Climate & Environmental Studies Program | Vanderbilt University   **Nashville, TN**

Teaching Assistantship – Society and the Environment Capstone (ENVS 4101W)   *August 2024 – November 2024*

- Supported advanced instruction in environmental research methodologies, core concepts in climate science, and writing techniques, enhancing students' ability to analyze and synthesize information effectively.
- Assisted in guiding students through the development of research papers, including proposals, literature reviews, research questions, and research plans, with a focus on grammar, writing style, and analytical skills.

Vanderbilt University Medical Center | Department of Biomedical Informatics   **Nashville, TN**

Research Internship   *May 2024 – August 2024*

- Collaborated with Dr. Allison McCoy (PhD) to assess gaps in EHR medication records, contributing to recommendations for improving the accuracy of medication documentation in electronic health records, specifically when medications are no longer being taken.
- Conducted a comprehensive analysis of medication discontinuation practices through evaluation of 37,000+ patient encounters and interviewing physicians across various specialties, uncovering key inconsistencies and inaccuracies in medication documentation in the EHR.

TrackSellers | Technology Startup   **Remote**

Data Science Internship   *May 2022 – August 2022*

- Contributed to creating an original database of over 4 million Amazon sellers using web scraping with Python and MySQL software to generate comprehensive seller profiles and rankings for the optimization of partnerships within the Amazon ecosystem.
- Facilitated connections between suppliers and sellers through tailored ranking reports and insights on competition and market niches.

LEADERSHIP EXPERIENCE AND ACTIVITIES

Vanderbilt Data Science   **Nashville, TN**

Director of Communications, Project Developer – Land Trust for Tennessee   *November 2023 – Present*

- Collaborated on a land conservation project for the Land Trust for Tennessee, leveraging machine learning models trained on Landsat satellite data to predict and prioritize high-risk areas, optimizing conservation efforts.
- Produced tangible deliverables, including a geospatial raster dataset, an interactive web application for data visualization, and comprehensive methodology documentation.

Climate Innovation Accelerator   **Nashville, TN**

Student Innovator – The Mandala Movement   *January 2024 – April 2024*

- Worked with client business to conduct technical research and development, build prototypes/scale models, and perform baseline analysis to demonstrate the feasibility of piloting an affordable and sustainable 3D printed eco-housing project in Tennessee.
- Partnered with industry mentors, climate consultants, and industry stakeholders/funders to identify sustainability challenges and solutions through intensive ideation, design thinking, systems thinking, journey mapping, biomimicry, and user-facing design.