Isaiah Guenther

izguenther6@gmail.com ⬥ Michigan, USA ⬥ More Info: https://github.com/izguenther6

- Biological Engineer focusing on agriculture and conservation
- Capable of both physically demanding hands-on work and software-driven tasks
- Diverse professional experiences in labs, outdoors, and office environments

SKILLS & CERTIFICATIONS

- **Hands-On:** Wet lab procedures | Water & waste sampling/testing | Water navigation (boat, paddle vessels, freedive, swim) | Soil testing | Native/invasive plant management | Working with animals | Cold climate operations
- **Analysis:** Bio-process modeling | Heat & mass transfer | Control volume | Machine learning | Statistics
- **Software:** Python | R | MATLAB | Java | COMSOL | Excel
- **Languages:** English (native) | Spanish (proficient)
- **Certifications:** FII Level 1 Freediver (June 2023)

WORK EXPERIENCE

Soil & Water Lab – Cornell University   **2022 – Present**
Research Technician   *Ithaca, NY-USA / Remote*
- In progress: Monitoring pesticides with NYS Department of Environmental Conservation (DEC)
    - Sampling surface/groundwater across New York State to test for pesticide contamination
    - Developing machine learning models in Python that predict pesticide leaching events
    - Co-authoring reports and scientific journal articles based on findings
- Researched how water infiltrates soil through lab experiments and MATLAB image analysis
- Built lab website in WordPress – http://soilandwaterlab.cornell.edu/

Oxley Equestrian & Polo Center – Cornell University   **2024**
Stable Assistant   *Ithaca, NY-USA*
- Cleaned and maintained stalls for 30+ horses
- Implemented horse dietary/medicinal plans
- Haltered and guided horses to necessary stalls/pastures

PRO-DAIRY: Environmental Systems – Cornell University   **2024**
Research Assistant   *Ithaca, NY-USA*
- Contributed to the NYS Department of Ag. & Markets' database on dairy farm manure management
    - Measured methane emissions and collected manure samples at various farms
- Co-authored case study on anaerobic digester at 400-cow dairy farm – https://hdl.handle.net/1813/116079
- Calculated economic savings from covered manure storages in Python

Costa Farms – Worldwide Supplier of House/Garden Plants   **2023**
Grower Department Intern   *Miami, FL-USA*
- Investigated the efficacy of four different controlled-release fertilizers in various outdoor plant species
    - Oversaw experimental operations – setup, monitoring, data collection
    - Used R software to find key statistical insights from the fertilizer performance data
- Collaborated with intern team to identify potential plant shipping cost cuts up to $70,000 annually

Wastewater Treatment Plant – City of Hastings   **2022**
Intern   *Hastings, MI-USA*
- Ran daily lab tests on influent/effluent water – CBOD, coliforms, T/VSS, etc.
- Assisted team with equipment management and on-call sewer maintenance

EDUCATION

Cornell University   **Class of 2024**
Biological Engineering, B.S – 3.30/4.0 GPA   *Ithaca, NY-USA*
- Study abroad – Fall 2023, Universidad de Cantabria in Santander, Spain
- Extracurricular – Club Basketball Team; Outing Club

VOLUNTEER & AFFILIATIONS

Pierce Cedar Creek Institute – Nature Education Center   **2019 - Present**
Stewardship Department Volunteer   *Hastings, MI-USA*
- Collected and cleaned native prairie plant seeds for redistribution
- Identified and removed woody invasive plant species in local forests
- Catered banquet dinner events

Michigan Spearfishing Association   **2023 - Present**
Member   *MI-USA*
- State-wide, collaborative network of underwater spearfishers

REFERENCES

Tammo Steenhuis
Current Supervisor, Professor of Biological & Environmental Engineering – Cornell University
- Email: tss1@cornell.edu

Mia Cabrera
Former Co-Worker, EHS Intern - Costa Farms
Current Master's Student in Environmental Horticulture – University of Florida
- Email: mia.cabrera@ufl.edu

Verne Robins
Former Supervisor, Utilities Superintendent – City of Hastings
- Email: vrobins@hastingsmi.org