

# Isaiah Guenther

Biological Engineer ♦ izguenther6@gmail.com ♦ Website: <https://github.com/izguenther6>

---

- Passionate about food systems, hydrology, and environmental conservation
- Capable of both hands-on work and software-driven tasks
- Diverse professional experiences in labs, outdoors, and office environments
- *Working Holiday Visa in Ireland from May 2025 – May 2026*

## SKILLS & CERTIFICATIONS

---

- **Hands-On:** Wet lab | 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 | Artificial intelligence coding agents | R | MATLAB | Java | COMSOL | Excel
- **Communication:** Posters | Presentations | Website | Reports | Publications
- **Languages:** English (native) | Spanish (proficient)
- **Certifications:** FII Level 1 Freediver (obtained June 2023)

## WORK EXPERIENCE

---

### Soil & Water Lab – Cornell University

*Research Technician*

**2022 – 2025**

*Ithaca, NY-USA / Remote*

- Monitored pesticide leaching with NYS Department of Environmental Conservation
  - Sampled surface/groundwater to test for pesticide contamination
  - Developed machine learning models and theoretical index to predict future leaching
  - Co-authored reports, presentations, and journal publications based on findings
- Built lab website – <http://soilandwaterlab.cornell.edu/>

### Oxley Equestrian & Polo Center – Cornell University

*Stable Assistant*

**2024**

*Ithaca, NY-USA*

- Maintained stalls for 30+ horses
- Implemented horse dietary/medicinal plans
- Guided horses to necessary stalls/pastures

### PRO-DAIRY: Environmental Systems – Cornell University

*Student Research Assistant*

**2024**

*Ithaca, NY-USA*

- Contributed to manure management database with NYS Department of Ag. & Markets
  - Measured methane emissions and collected manure samples at dairy farms
- Co-authored case study on anaerobic digester at 400-cow dairy farm – <https://hdl.handle.net/1813/116079>

### Costa Farms – Worldwide Supplier of House/Garden Plants

*Grower Department Intern*

**2023**

*Miami, FL-USA*

- Investigated the efficacy of controlled-release fertilizers in outdoor plants
  - Oversaw experimental operations – setup, monitoring, data collection
  - Found key statistical insights on fertilizer performance
- Collaborated with intern team to identify plant shipping cost cuts up to \$70,000 annually

### Wastewater Treatment Plant – City of Hastings

*Intern*

**2022**

*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**

*Biological Engineering, B.S – 3.30/4.0 GPA*

- Study abroad – Fall 2023, Universidad de Cantabria in Santander, Spain
- Extracurricular – Club Basketball Team; Outing Club

**Class of 2024**

*Ithaca, NY-USA*

## VOLUNTEER

---

### **Pierce Cedar Creek Institute – Nature Education Center**

*Stewardship Department Volunteer*

- Collected native prairie plant seeds for redistribution
- Removed woody invasive plant species in local forests
- Catered banquet event

**2019 - Present**

*Hastings, MI-USA*

## REFERENCES

---

### **Tammo Steenhuis**

*Former Supervisor, Professor of Biological & Environmental Engineering – Cornell University*

- Email: [tss1@cornell.edu](mailto: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](mailto:mia.cabrera@ufl.edu)

### **Verne Robins**

*Former Supervisor, Utilities Superintendent – City of Hastings*

- Email: [vrobins@hastingsmi.org](mailto:vrobins@hastingsmi.org)