



---

[izguenther6@gmail.com](mailto:izguenther6@gmail.com) ♦ Portfolio: <https://github.com/izguenther6> ♦ he/him

*Cumulative 3+ years of field-focused environmental protection experience  
Proficient in biological process modeling & data science (Python, R, MATLAB, COMSOL)*

---

## WORK EXPERIENCE

### **Part-time roles in Philadelphia, PA**

**Aug 2025 - Present**

- Computer Science / STEM tutor (TechCORE2 & Philly Tutors)
- Market Associate & Temp Market Manager (Rittenhouse Farmers Market)

### **Soil & Water Lab – Cornell University**

**Oct 2022 - May 2025**

*Research Technician (part-time, seasonal)*

*Ithaca, NY-USA*

- Monitored pesticide leaching with NYS Department of Environmental Conservation
  - Tested 50+ surface/groundwater sites for contamination from 80+ pesticides
  - Developed hydrogeological models to predict future leaching in Python
  - Co-authored annual reports, presentations, and journal publication (pending)
- Built lab website in WordPress

### **Costa Farms – Decorative Horticulture**

**June - Aug 2023**

*Grower Department Intern*

*Miami, FL-USA*

- Investigated the efficacy of four controlled-release fertilizers in outdoor plants
  - Oversaw 450+ potted plant experiments – setup, monitoring, data collection
  - Found key statistical insights on fertilizer performance in R

### **Wastewater Treatment Plant – City of Hastings**

**June - Aug 2022**

*Wastewater 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 & CERTIFICATIONS

### **Cornell University**

**Class of 2024**

*Biological Engineering, B.Sc.*

*Ithaca, NY-USA*

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

### **Freediving Instructors International**

**Obtained June 2023**

*Level 1 Freediver*

*Miami, FL-USA*

- Recreational freediving in fresh- / marine waters, ~20 meter depth
- 

## PUBLICATIONS & REPORTS

### **Theoretically Informed Machine Learning Models for Predicting Pesticide Leaching in NY**

*Poster presented August 2025 at Northeast Agricultural & Biological Engineering Conference*

- Lead author

### **Water Quality Monitoring for Pesticides in Upstate NY - 2023 Annual Report**

*Submitted October 2024 to NYS Department of Environmental Conservation*

- Primary section author on machine learning use for pesticide leaching prediction