

# Isaiah Guenther

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- Class of 2024 Biological Engineering graduate from Cornell University
- Seeking employment in Singapore from November 2024 through May 2025 (Working Holiday Visa)

## WORK EXPERIENCE

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### Soil & Water Lab – Cornell University

Research Assistant

**Oct. 2022 – Present**

*Ithaca, NY-USA / Remote*

- In progress: Monitoring aquifers with NYS Department of Environmental Conservation (DEC)
  - Sampling groundwater across New York State to test for pesticide contamination
  - Developing machine learning models in Python that predict leaching events
- Researched water infiltration in soil through lab experiments and MATLAB image analysis
- Built lab website in WordPress – <http://soilandwaterlab.cornell.edu/>

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

Research Assistant

**Jan. 2024 – May 2024**

*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 treatment stages
- Co-wrote case study report on anaerobic digester at 400-cow dairy farm
- Calculated economic savings from covered manure storages in Python

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

Grower Department Intern

**Summer 2023**

*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 cut costs of plant shipping by \$70,000 annually

### Wastewater Treatment Plant – City of Hastings

Intern

**Summer 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

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### Cornell University

Biological Engineering, B.S – 3.30/4.0 GPA

**Class of 2024**

*Ithaca, NY-USA*

- Study abroad – Fall 2023, Universidad de Cantabria in Santander, Spain
- Extracurricular – Club Basketball Team; Outing Club
- Student Employment – Tutor for Student-Athletes; Stable Assistant for Equestrian/Polo Team Horses
- Notable courses – *Fluid Mechanics* / *Heat & Mass Transfer* / *Molecular Bio & Genetic Engineering of Plants* / *Fish Ecology* / *Sustainable Water System Design* / *Digital Food Engineering* / *Machine Learning with Big Data* / *Object-Oriented Programming*

## CERTIFICATIONS & SKILLS

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- **Certifications:** FII Level 1 Freediver (June 2023)
- **Languages:** English (native), Spanish (conversational)
- **Software:** biological modeling, statistics, machine learning – Python, R, MATLAB, Java, COMSOL, Excel
- **Hands-On:** wet lab, water sampling/testing, handling hazardous materials, working with animals, bioinstrumentation