

JOIN OUR TEAM!

Undergraduate Internship Opportunity: Precision Agriculture and Database Management

The Nutrient Management Spear Program (NMSP) at Cornell University is seeking an undergraduate intern to contribute to our ongoing research on yield monitor data processing and yield stability zones in New York. This project focuses on precision agriculture and data analytics, utilizing multi-year yield data to develop strategies for optimizing crop inputs and improving farm management.

Project Summary

Precision agriculture depends on accurate yield maps, which are often derived from raw yield monitor data. However, this data frequently contains errors that must be corrected. This project directly addresses this challenge by cleaning yield monitor data, thereby enhancing the reliability of long-term datasets. These refined datasets are then used to develop Yield Stability Zones, identifying consistent high- and low-yielding areas within fields. This ultimately supports data-driven strategies for optimizing crop inputs, improving soil health, and increasing farm profitability.

The intern will play a key role in managing and analyzing these datasets to support decision-making in precision agriculture and contribute to the development of high-quality agricultural maps.

Position Summary

The intern will be responsible for designing a database to store and manage multiple years of yield data, incorporating geospatial information. This role involves significant data cleaning, organization, and analysis, ensuring the dataset is structured for long-term use in research and on-farm decision-making. The student intern will work directly with a data analyst in our team.

Key Responsibilities

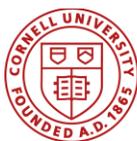
- Develop a structured database to store and manage historical yield data with geospatial attributes.
- Clean and process raw yield data for accuracy and consistency.
- Collaborate with the research team to integrate database outputs into ongoing agronomic analyses.
- Document database structure and data-processing steps for future use.

Preferred Qualifications

- Undergraduate student in Computer Science, Data Science, Agronomy, Environmental Science, Geographic Information Systems (GIS), or a related field.
- Knowledge in database design and management (e.g., SQL, PostgreSQL, or similar).
- Experience in data analytics using R, Python, or other statistical tools.
- Familiarity with geospatial data handling (GIS, QGIS, ArcGIS, or related software).
- Motivated, detail-oriented, and have strong analytical skills.

Interested?

Email Dr. Quirine Ketterings at qmk2@cornell.edu. Please include your resume and explain why you are interested in pursuing this opportunity. We are looking for a student to join us right away (work around class schedules) or for a full-time summer internship.



Cornell University



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