

# Rubenstein School of Environment and Natural Resources

## University of Vermont

### Perennial Summer Internship Program – 2022

**Internship Title:** Inland Lake Cyanobacteria Monitoring Program Pilot

**Internship Site:** Rubenstein Ecosystem Science Laboratory, UVM, and VT Department of Environmental Conservation, 1 National Life Dr., Montpelier

**Description:** The intern will assist with the Vermont inland lakes cyanobacteria monitoring program, which is active June through October. The intern will carry out a pilot project to develop new data collection methods for enumerating cyanobacteria in inland Vermont lakes. Primary responsibility will be the quantification and identification of cyanobacteria samples collected several inland lakes by VT DEC volunteers using [FlowCAM](#), a benchtop imaging-in-flow microscope. The intern will help to build classified image libraries which will be used to train a deep-learning neural network classifier, to enable automated image identification and expanded cyanobacteria monitoring in the future. The intern will also be responsible for coordinating with DEC staff and citizen lake monitors on inland lakes for sample pickup. There will also be opportunity to assist with sample collection on Lake Champlain and experience other aspects of work in the DEC Lakes and Ponds Program and/or the Rubenstein Ecosystem Science Laboratory at UVM.

**Desired qualifications/skills/coursework:** The ideal intern should be proficient in Excel and some experience in R and/or Python is preferable. Experience with algae identification would be great, however training will be provided. An understanding of basic limnology and statistics would be helpful. The applicant should also be comfortable interacting with citizen monitors in person as well as via email or phone. Access to a reliable vehicle for transportation is recommended but not required.

**\*Rubenstein students currently in their sophomore and junior years are eligible to apply. Seniors graduating in May 2022 are not eligible to apply. Earning Independent Study or Internship credit through the Rubenstein Internship Program is required. Due to possible restrictions related to the ongoing COVID-19 pandemic, Perennial Internships may happen as described or be modified. \***

**Supervision:** The intern will be primarily supervised by Dr. Peter Isles, Project Leader for the Lake Champlain Long-term Monitoring and Cyanobacteria Monitoring Projects at the Vermont DEC, and co-supervised by Prof. Jason Stockwell and Prof. Ana Morales-Williams at UVM. The intern will have the opportunity to interact with others in the DEC Lakes and Ponds Program and the Rubenstein Ecosystem Science Laboratory, and with a variety of volunteer monitors throughout the

state. The intern will work also closely as a team with another VT DEC intern.

**Start and End Dates:** Mid-May – Mid-August, 2022 (exact start/end dates are negotiable)

**Total Hours:** 20 hours/week for 12 weeks

**Compensation:** \$13/hour

**How to apply:**

1. Click the following link to view the Rubenstein Perennial Internship Descriptions in Handshake: <https://uvm.joinhandshake.com/employers/226837>
  - a. If asked to log in: click “UVM Net ID Login” & login.
  - b. Click the Favorite button to enable easier searches in the future.
2. Click “View All Jobs” in Jobs at Rubenstein Perennial Internship Program box on right side of page.
3. You should now see the great Perennial internship opportunities! Click “View Details” to learn more about each position.
  - a. Please do take the time to carefully read each individual description so that you don’t miss a great opportunity by judging an internship solely on its title.
  - b. You may apply for up to **three** Perennial Internships.
  - c. All applications are due by 11:59pm, on Monday, February 21<sup>st</sup>, 2022.
4. You’ll need to upload both required documents in Handshake before you can apply for any Perennial Internship:
  - a. Click on your name at top right of screen in Handshake
  - b. Select Documents.
5. Please upload all documents as pdfs. The following are the required documents:
  - a. Resume
  - b. Cover Letter
    - i. You should write and upload a unique cover letter for each position to which you are applying.

- ii. In your cover letter, provide the name & contact information for at least one professional reference. This could be someone who supervised you in a past work/internship/volunteer position, or a professor or teacher, etc. The person listed should **not** be the person who completes your recommendation form.
6. In addition to the documents listed above, a recommendation form will need to be completed by a Rubenstein faculty, graduate student, or staff member of your choosing.

When you ask your recommender if they are willing to complete the form to support your application, please provide your recommender

- a. This link: [recommendation form link](#)
  - b. Only one recommendation form needs to be completed regardless of how many Perennial Internships you are applying for.
  - c. Your recommender will complete & submit this form online and then your recommendation will be confidentially added to your application(s). This recommendation form needs to be submitted by the February 21<sup>st</sup>, deadline.
7. Make sure that your resume and cover letter(s) are as strong as they can be! Utilize the resources around you:
- a. The Rubenstein Stewards are great at reviewing resumes/cover letters and providing helpful feedback. Email the Stewards to schedule an appointment after the start of the semester: [RSENRStewards@uvm.edu](mailto:RSENRStewards@uvm.edu)
  - b. Get your resume and cover letter reviewed by a Career Counselor at the Career Center. [You can check the Career Center's drop-in hours here.](#) The Career Center also offers [a guide on building your resume available here.](#)
8. If you are selected to interview for a Perennial Internship, you will be contacted by the site to set up an interview during early-mid March.