

# Kaleigh Soucy

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## OBJECTIVE

To secure a summer internship in the manufacturing sector and work on process and product optimization through innovative problem solving

## EDUCATION

**Cornell University**, College of Engineering, Ithaca, NY

**Expected May 2023**

Bachelor of Science, Chemical Engineering

Cumulative GPA: 3.97; Dean's List, Fall 2019, Spring 2020, Fall 2020, Spring 2021

**Relevant Courses:** Fluid Mechanics; Chemical Process Design and Analysis; Introduction to Chemical Engineering; Physical Chemistry 1 and 2; Organic Chemistry; Differential Equations; Multivariable Calculus; Mechanics; Electromagnetism; MATLAB

**Campus Involvement:** Golden Key International Honor Society: *Member*, Kappa Delta Sorority: *Corresponding Secretary and Philanthropy Committee Member*

## RESEARCH EXPERIENCE

**The Hormozi Lab Group**, Cornell University, Ithaca, NY, *Undergraduate Researcher*

**June 2021-Present**

- Assemble and tests laser optics equipment and various cell geometries for experimental imaging of particles in suspension while documenting procedural steps
- Conduct imaging of suspension patterns to model the flow of mudslides and avalanches and processes images through ImageJ for data collection
- Create suspension fluids and is trained to test their properties on a state-of-the-art TA rheometer
- Designed the lab's website and manages frequent updates such as composing lab news articles

**Cornell AguaClara Project Team**, Cornell University, Ithaca, NY, *Subteam Member*

**Sep. 2020-Aug. 2021**

- Perform 10 hours of research and report writing per week with 3-4 peers to optimize coagulant dosage for removing humic acid from drinking water in water purification plants
- Test effectiveness of coagulant volumes through a mock sedimentation tank and flocculator by measuring light absorbance of the humic acid before and after coagulation
- Enhanced Arduino setup for infrared and visible light sensors to determine the concentration of dissolved organics through the reflection and transmission of light

## LEADERSHIP EXPERIENCE

**Cornell AguaClara Project Team**, Cornell University, Ithaca, NY, *Professional Development Chair*

**Jan. 2021- Present**

- Educate and engage project team members in career development resources and strategies through a semesterly workshop
- Initiate connections between 60 project team members and alumni through a mentorship program and panels
- Collaborate with other AguaClara chairs for member recruitment, annual conference logistics and outreach events

**Engineering Peer Advising**, Cornell University, Ithaca, NY, *Peer Advisor*

**June 2021-Present**

- Coordinate with one other student and a chemical engineering professor to transition first-year engineering students into the program
- Facilitate weekly information sessions and activities for 17 students and gives feedback to each student on an engineering ethics assignment

**Society of Women Engineers**, Cornell University, Ithaca, NY, *Committee Member*

**Sept. 2019- June 2021**

- Cooperated with 6 students to execute a virtual Girl Scout Day for New York Brownie Girl Scouts to earn three coding badges during a 4-hour workshop
- Assisted a team of 6 students to organize and volunteer at 2 fundraisers during the 2019-2020 year, including graphically designing two stickers to sell
- Corresponded with an accepted student about life as a Cornell engineer for Women in Engineering Day

**Pandora Dance Troupe**, Cornell University, *Treasurer*

**June 2021 -Present**

- Formulates a yearly budget for the dance team, which includes show ticket sale projections, costuming and event spending
- Oversees ticket sale revenue and distribution twice a year for the team's shows and ensures attendance quotas are met
- Choreographs routines for the groups two annual shows, handling the scheduling and organization of 5-10 dancers

## SPECIALIZED SKILLS

**Programming and Computer skills:** MATLAB, JavaScript, Mathematica, HTML, Excel

**Fabrication and Operating Skills:** Sawing, Soldering