**Benjamin Bray**

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**Qualifications Summary:**

* Completed SAChE Certificate Program: Basics of Laboratory Safety, The Importance of Process Safety, Hazard Recognition- American Institute of Chemical Engineers
* Proficient with Nuclear Magnetic Resonance Spectroscopy, Column Chromatography, reaction set-up, scientific writing, Microsoft Excel, Word, and PowerPoint
* Relevant coursework: Organic Chemistry 1&2, Organic Chemistry Lab 1&2, Biochemistry 1&2, General Biology 1&2, Calculus 1,2&3, Differential Equations, Cell Biology, Analytical Chemistry
* Effective communicator, team player, motivated learner, adaptable to new tasks and projects

**Education:**

**State University of New York College of Environmental Science and** **Forestry** (ESF) Syracuse, NY

Bachelor of Science: *Biochemistry* *May 2024*

GPA 3.36

Awards: Dean’s List (Spring 2022)

**Relevant Laboratory Experience:**

**Dr. John Smith’s Lab**, College of Arts & Sciences: Chemistry, Syracuse University Syracuse, NY

*Undergraduate Student Researcher Aug 2022-Present*

* Perform multi-step synthesis of a non-ergoline dopamine agonist called Rotigotine
* Optimize and scale up the same synthetic pathway to increase crude product yield
* Investigate the synthesis of Rotigotine analogs, with the hopes of increasing the repertoire of dopamine agonist

**Dow Development Laboratories** Petaluma, California *Summer Intern May 2022-July 2022*

* Collaborated with scientists to create topical formulations such as emulsions, ointments, and creams
* Analyzed formulation’s water content with Karl Fischer Coulometric Titrator
* Conducted research for a business development project where competitors technologies were compared to that of our own

**Additional Experience:**

**Organic Chemistry,** ESF Syracuse, NY

*Undergraduate Tutor* *Jan 2021-Present*

* Address difficult concepts that students were unclear on during lecture
* Review homework assignments and prepare the tutees for their upcoming examinations
* Demonstrate how organic mechanisms function and display the electron flow throughout the reaction

**Chem-e-car Design Competition**, ESF Syracuse, NY

*Assistant Captain Sept 2021-Present*

* Aid in designing a prototype model for a vehicle aimed to be fueled by sustainable sources
* Brainstorm with other students to improve the design of the vehicle

**Leadership and Campus Involvement:**

**AIChE Club**, *Secretary* *Sept 2021-Present*

**Paper and Bioprocess Engineering Club**, *Member*  *Sept 2021-May 2023*

**Syracuse Marching Band**, *Mellophone Player* *Aug 2021-Sept 2022*

**Life Scout, Boy Scouts of America**, *Patrol Leader* *Sept 2016-May 2021*