

Rafael Merriam

Providence, RI | 401-555-1421 | RafaelMerriam@gmail.com | [linkedin.com/in/rafaelmerriam](https://www.linkedin.com/in/rafaelmerriam)

EDUCATION

University of Rhode Island, Kingston, RI

May 2023

Bachelor of Science in Chemistry

GPA: 3.5/4.0, Dean's List (5 semesters), Talent Development Scholar

Relevant Coursework: Qualitative Organic Analysis, Bioanalysis Laboratory, Computational Chemistry Laboratory, Chemical Synthesis and Mechanism, Forensic Chemistry, Chemistry of Biological Systems

LABORATORY AND TECHNICAL SKILLS

Gas Chromatography, Column Chromatography, Titration, IR Spectra, Reflux, Fractional Distillation, Anhydrous Reactions, MATLAB, Mathematica, ChemDraw, HyperChem, UGNX, MS Excel, MS Office, Zoom, Google Workspace

RESEARCH EXPERIENCE

Rhode Island Technology Consortium, Providence, RI

May 2022 - Present

Research Assistant

- Design random gene libraries to investigate frequency of occurrence of catalysts in protein sequence space
- Use binary patterning, amino acids, and chorismate mutase as a design scaffold
- Integrate iterative cycles of directed evolution to produce 40-fold improvements in the catalytic efficiency of a novel engineered homo-hexameric chorismate mutase

RELEVANT EXPERIENCE

New England Chemical Corporation, Boston, MA

May - August 2022

Polymer Chemist Intern

- Focused on polyurethane application development to produce a plastic coating for wood and metal
- Developed carbodiimide-based crosslinker for coating and performed isocyanate and carbodiimide colorimetric titration
- Mixed coating formulations and produced drawdown samples on stainless steel
- Followed ASTM and DIN methods for application testing

University of Rhode Island, Kingston, RI

September 2021 - May 2022

Chemistry Stockroom Technician

- Prepared chemistry laboratories for undergraduate students
- Enforced laboratory safety policies and managed hazardous waste produced by teaching labs

PROJECTS

Grignard Synthesis

January - March 2021

- Designed and created, with a team of four, an experiment to produce a Grignard reagent to use in obtaining a wanted organic compound using a limited amount of supplied chemicals
- Examined possible reactions for given chemicals to yield wanted compound within 80% accuracy rate
- Wrote concluding report detailing planning, researching, procedures, safety, and outcomes

LEADERSHIP EXPERIENCE

University of Rhode Island, Tutor (Academic Enhancement Center), Kingston, RI

January - May 2022

- Maximized student learning by assessing individual needs and aligning academic support to achieve objectives
- Developed and implemented study strategies with students to enhance understanding of material

CERTIFICATIONS (all current)

PPE – Personal Protective Equipment, RCRA Hazardous Waste, Hazard Communications

HONORS AND PROFESSIONAL AFFILIATIONS

Gamma Sigma Epsilon – Chemistry Honor Society, Beta Mu Chapter, Member

May 2020 - Present

American Chemical Society, Student Member

January 2019 - Present

OTHER WORK EXPERIENCE

Dick's Sporting Goods, Warwick, RI

October 2018 - April 2021

Customer Service Representative

- Answered customer questions regarding product specifications, sales, and returns
- Recognized for exceptional customer service five times (quarterly "Customer Appreciation Award")
- Developed professional communication, problem-solving, and critical thinking skills

LANGUAGE SKILLS

Spanish (fluent), French (conversational)