

Bryce Askew

480-815-7306 | baskew2@asu.edu | <https://www.linkedin.com/in/bryce-askew-b927b1159/>

EDUCATION

Bachelor of Science and Engineering, Chemical Engineering

May 2025

Arizona State University, Tempe, AZ

Honors Thesis: "Effect of Crosslinking Density in PDMS Polymer Membranes on Pervaporation Performance"

EXPERIENCE

Research Assistant, Arizona State University, Tempe, AZ

Summer 2023 - Spring 2024

- Funded under Fulton Undergraduate Research Initiative (FURI) and Grand Challenges Scholar Program (GCSP) Research Stipend, working under Dr. Matthew Green
- Worked ~10 hours per week, gained experimental design, data analysis, and laboratory skills
- Presented results at the Fulton Forge Research Expos for Fall 2023 and Spring 2024.

SROP Research Program, Northwestern University, Evanston, IL

Summer 2024

- Funded under Summer Research Opportunity Program (SROP) for full-time research under Dr. Jeffrey Richards
- Worked ~40 hours a week, expanded experimental design skills, learned data analysis in Python, and theoretical framework behind rheological studies
- Presented results at the 2024 SROP Research Symposium in the form of a poster session, as well as a research paper

Teaching Assistant, Arizona State University, Tempe, AZ

Fall 2022 - Spring 2023

- Assistant taught the first and second semester of The Human Event, HON 171 and HON 272, under Dr. Rebecca Soares
- Developed and expanded teaching skills, critical reading and analysis, and literary analysis.
- Held regular office hours, participated in class discussions, and graded discussion boards.

Instructional Aide, Arizona State University, Tempe, AZ

August 2024 - Present

- Co-taught two sections of General Chemistry for Engineers (CHM 114).
- Led students in lab experiments, graded assignments, and held regular office hours.
- Developed teaching and mentoring skills, lab safety, and leadership skills.

IT Aide, Arizona State University, Tempe, AZ

October 2022 - Present

- Worked as an IT Aide student worker under the School for the Engineering of Matter, Transport, and Energy at ASU.
- Basic IT customer support, troubleshooting, and software support.
- Developed people skills, leadership as most senior student worker, and problem solving skills.

RESEARCH EXPERIENCE

Dr. Matthew Green Lab, Arizona State University, Tempe, AZ Spring 2023 - Present

- Pervaporation of polymer membranes to separate volatile organic compounds from water
- Developed skills in Excel proficiency, maintenance of a lab notebook, experimental design, data analysis, and literature review

Dr. Jeffrey Richards Lab, Northwestern University, Evanston, IL Summer 2024

- Rheology of lithium-ion battery slurries, both cathode and anode
- Learned extensively about theory of rheology and its application to rheological analysis of samples in a rheometer; became proficient in use of TA Instruments HR and DHR rheometers
- Developed skills in Python for graphical analysis, data analysis, design of experiments, and literature review

PRESENTATIONS

Rheology of Lithium-Ion Battery Slurries. Summer Research Opportunity Program Research Symposium, August 2nd, 2024. Presented experimental results for rheology of cathode and anode polymer/solvent solutions.

Functionalized PDMS for Membrane Separations of VOCs from Water. Fulton Forge Research Expo, April 19th, 2024. Presented results of pervaporation experiments of functionalized PDMS membranes for separating ethanol from water.

Synthesis of Polymers to Make Membranes for Water Purification. Fulton Forge Research Expo, November 17th, 2023. Presented results of pervaporation experiments of functionalized PDMS membranes for separating ethanol from water.

COMMUNITY INVOLVEMENT

C2 Counselor, E2 Engineering Camp, Arizona State University Summer 2023

- Supervised a group of incoming engineering freshmen at the ASU engineering summer camp. Developed leadership and mentoring skills.

EPICS Team Member, Vietnam Smart Agriculture, Arizona State University Spring 2023

- Engaged with Vietnam Smart Agriculture project under the Engineering Project in Community Service (EPICS) program. Worked on application of artificial intelligence and “smart technology” to reduce water consumption in Vietnamese agriculture.

Alumni Board Member, Arizona Academic Decathlon Spring 2024 - Present

- Volunteer board member for Arizona Academic Decathlon. Helped run competitions, volunteered to judge, and assist in financial decisions. Leadership and mentoring skills.

Volunteer, LGBTQ+ Resource Center Project, Rainbow Coalition at ASU Spring 2023 - Present

- Volunteer with the Rainbow Coalition at ASU, an organization representing the interests of LGBTQ+ students at ASU. Worked on advocating for the establishment of an LGBTQ+ Center on campus to better represent the queer students on campus and ensure they have a safe space. Developed leadership and advocacy skills.

Volunteer Judge, HISEF, Chandler Unified School District

February 2022

- Assisted with judging science fair projects for the Hamilton Invitational Science and Engineering Fair.
Gained skills in professional feedback, mentoring, and scientific analysis.

PROFESSIONAL ASSOCIATIONS

Member, American Institute of Chemical Engineers

October 2022 - Present

Member, Out in Science, Technology, Engineering, and Mathematics (oSTEM)

September 2022 - Present

SKILLS

Information Technology: Technical support, maintenance, software, and hardware, ServiceNow, Cireson

Software: SOLIDWORKS, Microsoft Office, Microsoft Excel, Microsoft Outlook

Programming: Python, Java, MATLAB, RStudio

Laboratory: Membrane separations, wastewater/water treatment, data analysis, rheology, slurry coating

LICENSES AND CERTIFICATIONS

GSCP Service Learning Badge

Received January 2024

GSCP Entrepreneurial Mindset Badge

Received November 2023

GSCP Interdisciplinary Perspective Badge

Received November 2023