

Mailing Address

**Jocelyn Ariel Riet**  
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Permanent Address

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### Education

B.S., **Chemical Engineering**, Virginia Tech, Blacksburg, VA, U.S.A. May 2021

Minor: Chemistry      GPA in final two years: 3.83

Ph.D. **Chemical Engineering**, University of Toronto, Toronto, ON, Canada.

Expected graduation August 2026. GPA: 3.80

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### Laboratory Research Experience and Publications

Ph.D. Candidate, University of Toronto, Advanced Membranes Laboratory PI: Jay Werber. Winter 2023-Present

- Developing an ultra-thin bipolar membrane for electrified and cost-effective atmospheric carbon dioxide removal
- Successfully characterizing ultra-thin membranes using novel methods

Ph.D. Student, University of Toronto, Laboratory for Strategic Materials. PI: Gisele Azimi, Fall 2021-Fall 2022

- First-line author: "The intercalation pathway of  $Al^{3+}$  into a Chevrel Phase  $Mo_6S_8$  Electrode"  
**Unpublished manuscript**
- Elucidated the mechanism facilitating charge storage in a lithium-ion battery alternative.

Undergraduate Research Assistant: Virginia Tech Polymer Composite & Materials Laboratory, Spring 2020-Summer 2021

- Co-author: "Rheology, crystallization, and process conditions: The effect on interlayer properties in three-dimensional printing" **Physics of Fluids. 34**, 123108 (2022)
- Researched varied print properties to optimize inter-layer adhesion properties of semi-crystalline PLA

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Undergraduate Research Assistant: Virginia Tech Department of Chemistry, Spring 2019

- Co-author: "Mesoporous Polyetherimide Thin Films via Hydrolysis of Polylactide-b-Polyetherimide-b-Polylactide" **Polymer Chemistry. 12**, 3939-3946 (2021)

### Teaching Assistant and Work Experience

Teaching Assistant: University of Toronto, CHE304 & 305, Chemical Engineering Laboratory III and IV Spring 2022-present

- Administering an open-ended lab to allow students an experience that emulates real engineering challenges, involving direct instruction, in-lab evaluation, and marking reports

Research and Development Co-Op, AdvanSix. Colonial Heights, VA. 2019

- Supporting plant operations and solving problems within ammonium sulfate production
- Developed a new testing procedure to eliminate four hours out of a seven-hour procedure

### Activities and Honours

- Bert Wasmund Graduate Fellow
- 1<sup>st</sup> Place in Poster Competition: 2022 University of Toronto ChemE Exhibition Dinner

Symposium Co-Chair and Oral Presentation

- Canadian Materials Science Conference (CMSC 2022)

Conference Poster Presentation and Attendee

- American Chemical Society 2021, Polymer Chemistry (ACS POLY 2021)
- Society of Plastic Engineers Annual Technical Conference 2021 (SPE, ANTEC 2021)
- National Graduate Research Polymer Conference 2021, Virginia Tech (NGRPC 2021)