

# Bethany Rysak

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## Education

<b>University of Texas, Jackson School of Geosciences, Austin, TX</b>	August 2019 – May 2021
Master of Science, Advisor: Dr. Julia Gale	GPA: N/A
<b>Trinity University, San Antonio, TX</b>	August 2014 – May 2018
Bachelor of Science with Honors in Geosciences	Major GPA: 3.7   Cumulative GPA: 3.5

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## Key Skills

Experienced in geologic field and lab work, characterization of structural geology and mechanical stratigraphy, project planning, and presentation, and ArcGIS and Real-Time-Kinematic GPS mapping for structural and hydrological applications.

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## Relevant Experience

- Graduate Student, UT Jackson School of Geosciences, Bureau of Economic Geology, Austin, TX* August 2019 – Current
- Studying the nature of hydraulic fracture morphology & propagation at the Hydraulic Fracture Test Site in the Midland Basin, TX
- Assistant Scientist, Southwest Research Institute, Space Science & Engineering Division, San Antonio, TX* June 2018 – June 2019
- Member of the Structural Geology and Geomechanics group under supervision of David Ferrill, Ronald McGinnis, & Kevin Smart
  - Assisted with industry related problems and projects in the Permian, Jean d'Arc, Anadarko, and Neuquén Basins
  - Co-led training seminars and field trips for industry operator clients in the Permian Basin and Eagle Ford Shale Play
  - Compiled skills in areas such as industry consultation, client presentation, structural geology data collection in the field and lab, characterization of mechanical stratigraphy in both outcrop and core, fracture mapping, and core logging
- Student Researcher, Trinity University Independent Study Program, San Antonio, TX* July 2017 – May 2018
- Conducted field research and reconnaissance in the Mount St. Helens region of southern Washington to gain further knowledge concerning regional primitive volcanics and the chemistry of the mantle protolith
  - Analyzed olivine phase chemistry for 19 well defined samples via petrography, various phase diagrams, and Electron Microscopy
  - Compiled and analyzed data to produce a senior honors thesis
- Field Camp Participant & Student Researcher, University of Otago Geology Department, Dunedin, New Zealand* Feb. – June 2017
- Participated in and passed a 4-week Field Camp at the University of Otago, included field mapping of igneous, metamorphic and sedimentary rocks, structural mapping, stereographic projection, digital mapping, and proper report writing
  - Learned how to properly conduct a hydrographic survey, use navigational charts, preform a cast, and collect data with a Boomer, Multi-Beam Echo Sounder, CTD, ADCP, and plankton tow
  - Conducted research on board the *Polaris II* in the area of Stewart Island, and designed a management plan for the marine conservation site
- Research Assistant, Trinity University Independent Study Program, San Antonio, TX & Stanford, CA* March – Dec. 2016
- Researched trace element geochemistry in arc zircon from the Sierra Nevada mountain range, and how the geochemistry corresponds with “pulse” and “lull” events observed in magmatism
  - Gained much experience with the Stanford USGS SHRIMP-RG equipment, and executed copious tests in the Stanford University Zircon Lab where data was obtained, organized and analyzed concerning geochemistry
- Intern, NOAA Office of National Marine Sanctuaries, Education & Outreach Dept, Silver Spring, MD* Sept. 2013 - June 2014
- Monitored, analyzed, and effectively communicated findings on National Marine Sanctuary volunteer hours
  - Published report on the Top 10 NOAA ONMS volunteer activities for the 2013 fiscal year
  - Created and designed presentations on top lesson plans concerning marine conservation
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## Community Involvement

<i>Teaching Assistant, Structural Geology – Trinity University Geoscience Dept.</i>	School Year 2017-2018
<i>President – Trinity University Geology Club</i>	December 2017- December 2018
<i>President – Sigma Gamma Epsilon, Delta Xi Chapter</i>	School Year 2016-2018
<i>Head Bee Keeper – Trinity University Bee Alliance</i>	School Year 2016-2018

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## Scholarship

- Robert Lowell Freed Scholarship for Excellence in the Study of Earth Materials	School Year 2016-2017
- East Texas Geological Society Scholarship	School Year 2017-2018
- Outstanding Senior Student, Tinker Family Geoscience Award, W. A. Tarr Award	School Year 2018
- GeoCUR Award for Excellence in Student Research	School Year 2018
- Outstanding Undergraduate Poster Award, GSA Cordilleran Section Meeting	May 2018
- William Dow Hamm Memorial Grant, AAPG Grants-in-Aid Program	April 2020