

## Bear Jordan

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### EDUCATION

<b>Georgia Institute of Technology</b> <i>Master of Science in Data Analytics: Analytical Tools Track</i> GPA: 3.60 (in analytics coursework)	Atlanta, Georgia Summer 2023
<b>University of Georgia</b> <i>Master of Science in Geology</i> Thesis: Geology of the Calhoun Critical Zone Observatory in Union, SC GPA: 3.78	Athens, Georgia May 2020
<b>University of Georgia</b> <i>Bachelor of Science in Geology</i> GPA: 3.28	Athens, Georgia May 2018

### RESEARCH EXPERIENCE

<b>Strata Environmental Services</b> <i>Staff Geologist</i> <ul style="list-style-type: none"><li>Design an environmental health and safety dashboards for a Fortune 500 company</li><li>Produce and transform datasets using SQL and Python</li><li>Perform anomaly detection on gas station dispersal data to identify operator malfeasance</li><li>Sample groundwater wells to identify contaminate occurrence and flow</li><li>Prepare comprehensive environmental site assessments (including figures) for clients and state agencies from field observations, physical, and geochemical data</li></ul>	Knoxville, Tennessee January 2022 to Present
<b>Georgia Institute of Technology</b> <i>Graduate Student</i> <ul style="list-style-type: none"><li>Organized and lead a group of six students to investigate machine learning classification methods of volcanic earthquakes for a class project</li><li>Implemented empirical mode decomposition to extract features from raw seismic waveforms</li><li>Utilized synthetic minority oversampling to account for class imbalances</li><li>Trained and compared the performance of four classification methods</li></ul>	Atlanta, Georgia January to May 2022
<b>Energy and Mineral Resources, Utah Geological Survey</b> <i>Geological Technician</i> <ul style="list-style-type: none"><li>Collected whole rock geochemical samples to investigate the mineralization and development of a skarn deposit in western Utah</li><li>Compiled historical uranium production data, edit, and create figures for publication of the “Uranium and vanadium resources of Utah: An update in the era of critical minerals and green energy”</li><li>Conducted regular gravimetric field surveys in the Colorado Plateau and Basin and Range to facilitate the development of geothermal energy plays</li></ul>	Salt Lake City, Utah September 2020 to July 2021

## RESEARCH EXPERIENCE (cont.)

### Energy and Mineral Resources, Wyoming State Geological Survey

Laramie, Wyoming

*Contract Geologist*

June to September 2020

- Performed field mapping and GIS work for the publication of the “Preliminary Map of the Goat Mountain Quadrangle” in the GeMS standard
- Compiled stereo imagery for analysis in the ERDAS IMAGINE photogrammetry software
- Produced petrographic descriptions of hand samples
- Digitized and georeferenced historic maps using ArcGIS

### Department of Geology, University of Georgia

Athens, Georgia

*Graduate Research Assistant*

August 2018 to May 2020

- Researched the landscape evolution of an accretionary margin bounding Laurentia and peri-Gondwanan volcanic island arcs
- Planned and performed over 400 hours of detailed geologic mapping in highly altered metamorphic and igneous terranes
- Investigated the petrogenesis and discrimination of granites within the field site using major and trace element geochemical analysis
- Produced detailed mineralogies using petrographic thin sections and X-ray diffraction
- Received over \$2,000 of merit-based awards

### Upper Oconee Watershed Network

Athens, Georgia

*Board Member / Science and Monitoring Committee Chair*

November 2018 to May 2020

- Led a citizen science effort to monitor over 200 sites for water quality
- Directed research efforts within the Science and Monitoring Committee
- Participated in local government meetings as an advocate for environmental concerns
- Mentored and trained undergraduate interns

### Paul A. Schroeder, LLC

Athens, Georgia

*Consultant*

May 2019

- Characterized geology using field investigations to fulfill requirements for a conservation easement

### Field School, University of Georgia: Department of Geology

Western USA

*Student*

May to July 2018

- Performed over 200 hours of detailed geologic mapping in sedimentary and igneous terranes
- Produced digital map products using ArcGIS

### Department of Geology, University of Georgia

Athens, Georgia

*Undergraduate Researcher*

August 2016 to May 2018

- Identified changes in near surface clay mineralogy with X-ray diffraction to differentiate between allochthonous and authigenic soils
- Investigated mineralogical differences in sediments across barrier island facies

### Chattahoochee Riverkeeper

Atlanta, Georgia

*Intern*

January to May 2014

- Analyzed water quality samples to fulfill a \$50,000 grant from the Environmental Protection Agency

## SELECTED PUBLICATIONS / PRESENTATIONS

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Mills, S.E., and **Jordan, B.**, 2021, Uranium and vanadium resources of Utah: An update in the era of critical minerals and green energy: Salt Lake City, Utah Geological Survey Open-File Report, 29 p.

Gregory, R.W., Webber, P.W., Stotter, S.V., **Jordan, B.**, Lynds, R.M., and Frost, R.B., 2021, Preliminary geologic map of the Goat Mountain quadrangle, Albany County, Wyoming: Laramie, Wyoming State Geological Survey, 1:24,000 scale.

**Jordan, B.**, 2020, Changes in clay mineral assemblages of legacy sediments in the Calhoun Critical Zone Observatory, SC: Evidence for anthropogenic landscape change *in* Clay Minerals Society 57<sup>th</sup> Annual Meeting, Online, October 18-23, 2020.

**Jordan, B.**, 2019, Update on the geology of the Calhoun Critical Zone Observatory *in* Calhoun CZO Summer Science Meeting, Spartanburg, South Carolina, August 8, 2019.

**Jordan, B.**, and Lee, S., 2018, Descriptive mineralogy of Georgia's barriers island beaches *in* Center for Undergraduate Research Opportunities Symposium, Athens, Georgia, April 9, 2018.

## HONORS AND AWARDS

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<b>Outstanding Masters Student of the Year, University of Georgia: Department of Geology</b>	May 2020
<b>Miriam Watts-Wheeler Scholarship Fund, University of Georgia</b>	September 2019
<b>Gilles and Bernadette Allard Geology Award Fund, University of Georgia</b>	February 2019
<b>Miriam Watts-Wheeler Scholarship Fund, University of Georgia</b>	September 2018
<b>Graduate Research Assistantship, University of Georgia</b>	August 2018

## SERVICE PROJECTS

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<b>Graduate Student Council, University of Georgia</b>	September 2019 to May 2020
<b>Graduate Student Representative, University of Georgia: Department of Geology</b>	May 2019 to May 2020
<b>STEM Outreach Program, University of Georgia, Volunteer</b>	October 2019
<b>Kaolin Museum Design Charrette, University of Georgia, Volunteer</b>	September 2018

## SKILLS

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**Field Work:** 4x4 driving, ATV driving, detailed geologic mapping (~1,200 hours and two publications), expedition planning, geochemical and geophysical survey execution/planning (~400 hours), outdoor safety, structural measurements, and water quality sampling (~200 hours)

**Instrumentation:** Bruker D8-Advanced X-ray Diffractometer, Olympus Vanta pXRF, transmitted light petrographic microscopes, Georeva CG-5 Autograv, IDEXX Colilert, YSI Multiparameter Water Quality Meters, and Hach Colorimeters

**Languages:** English (fluent), Spanish (proficient)

**Programing:** JavaScript (D3), Python (Matplotlib, NumPy, Pandas, PySpark, Scikit-learn, Seaborn), R, and SQL (Sqlite3)

**Software:** ArcGIS, Adobe Illustrator, DIFFRAC.SUITE EVA, Jade, Linux, Tableau and Microsoft Office Suite