

JACK “JJ” RUSE

Graduate Research Assistant

Department of Geology, The University of Georgia

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RESEARCH INTERESTS

Structural geology, tectonics, planetary geology, planetary habitability, metamorphic petrology, rock mechanics, geologic mapping, planetary analogs, renewable energy resources, sustainability

EDUCATION

M.S. in Geology

Aug 2025 – May 2027

University of Georgia (UGA)

- GPA: 4.00/4.00

B.S. in Geology

Aug 2021 – May 2025

University of Florida (UF)

- GPA: 3.67/4.00 (Cum Laude)

B.A. in Astronomy

Aug 2021 – May 2025

University of Florida (UF)

- GPA: 3.67/4.00 (Cum Laude)
 - Minor: Geography
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PROFESSIONAL EXPERIENCE

Mine Engineer Intern

May 2026 – Present

KaMin Solutions LLC

Geovation (Geology + Innovation) Hub Member

Sep 2025 – Present

University of Georgia (UGA), The Chemours Company

- Advisor: Dr. Adam Milewski

Graduate Research Assistant

Aug 2025 – Present

University of Georgia (UGA)

- Thesis titled “*The Global Distribution of Shortening Landforms on Mars: Towards a Structural Geologic Map of the Red Planet*”
- Advisor: Dr. Christian Klimczak

Imperial Barrel Award (IBA) Team Member

Sep 2025 – Apr 2026

University of Georgia (UGA), American Association of Petroleum Geologists (AAPG)

- Project titled “*Development and Applications for Walrus Geologic Storage (DAWGS)*”
- Advisor: Dr. Kimberly Howell

Undergraduate Research**Assistant**

Sep 2023 – May 2025

University of Florida (UF)

- Project titled *“Lipid Biosignatures in Lava Tubes: Implications for Life Detection on Mars”*
- Advisor: Dr. Amy Williams

NASA Proposal Writing & Evaluation Experience**(NPWEE) Academy**

Sep 2023 – Dec 2023

NASA L’SPACE Program

- Primary role: Project Manager
- Other roles: Secondary Reviewer
- Project titled *“Radiation Resistant Boron Nitride Nanotube Composite Fibers for Space Crew Clothing”*

Lucy Mission Intern

Jun 2023 – Jul 2023

National Aeronautics and Space Administration (NASA)

- Primary role: Project Manager
- Other roles: Scientist, Mechanical Engineer
- Project titled *“Astronomical and Cosmic Heat/Infrared Light in Lucy Exploration Systems (ACHILLES)”*

Field Researcher/Participant

May 2023 – Jun 2023

GeoSPACE Geoscience Field Program (UF)

- Projects titled *“Volcanism in Iceland as an Analog for Cryovolcanism on Ceres,” “Mineralogy of Vent-235 in the San Francisco Volcanic Field,”* and *“Reverse Stratigraphy of Barringer Meteor Crater”*
- Advisor: Dr. Anita Marshall

Undergraduate Research**Assistant**

Jan 2023 – Dec 2023

University of Florida (UF)

- Project titled *“Using the Bayesian Statistical Framework for Testing Paleomagnetic Reconstructions”*
- Advisor: Dr. Joseph Meert

Mission Concept Academy (MCA)

Jan 2023 – May 2023

NASA L’SPACE Program

- Primary role: Astrogeologist
- Other roles: Chief Scientist
- Project titled *“Planetary Reconnaissance of Ice and Carbon in the Environment (PRICE)”*

AWARDS AND HONORS

2026

- **Judge’s Choice Award** for outstanding presentation and strong technical work at the IBA North America Semi-Finals competition

2025

- **Chevron Graduate Research Assistantship** to support graduate studies at UGA
- **Edward D. Danker Award** for excellence in scholarship, enthusiasm, motivation, leadership, and involvement in the department during total undergraduate career as a geology major at UF

- **Beyond120 Experiential Scholar** in recognition of professional growth/development beyond what is required of a degree in the College of Liberal Arts and Sciences (CLAS) at UF
- **Research Excellence Program for Undergraduates Scholar** in recognition of significant research experience during undergraduate studies at UF

2023 – 2024 • **CLAS Dean’s List** for 3.75+ semester GPA

2021 • **Florida Academic Scholarship** to support undergraduate studies at UF

GRANTS

2025 • **Student Travel Grant**, Florida Space Grant Consortium, \$1,600

2024 • **University Scholars Grant**, UF Center for Undergraduate Research, \$1,750
 • **Emerging Scholars Grant**, UF Center for Undergraduate Research, \$1,000

SKILLS

Technical R, MATLAB, Python, ArcGIS Pro, JMARS, Google Earth Pro, Adobe Illustrator, ISIS3, Petrel, geodynamic modeling (ASPECT/ParaView), Siemens NX, SolidWorks

Field/Lab Geologic mapping, rock mechanical assessment, structural analysis, seismic interpretation, well log interpretation, GPS, GPR, photogrammetry, optical mineralogy, pyrolysis gas chromatography-mass spectrometry, TMAH thermochemolysis

Other Project management, risk management, proposal writing, systems engineering topics, teaming, communication, leadership, conflict management, time management, adaptability, collaboration

TEACHING EXPERIENCE

University of Florida

Summer 2026	GLY 4930 - GeoSPACE Field Program	Guest Lecturer
Summer 2025	GLY 4930 - GeoSPACE Field Program	Teaching Assistant
Spring 2025	GLY 4155C - Geology of Florida	Teaching Assistant
Spring 2025	GLY 4400C - Structural Geology & Tectonics	Tutor

COURSEWORK

UGA	Data Analysis in the Geosciences, Rock Mechanics, Plate Tectonics, Petroleum Geology
UF	Structural Geology & Tectonics, Geophysics, Igneous & Metamorphic Petrology, Sedimentary Geology, Geological Field Methods, Field Studies, Mineralogy, Environmental & Engineering Geology, Historical Geology, Topics in Planetary Science, Astronomy & Astrophysics, Astrobiology, Exoplanets, Techniques of Observational Astronomy, Climatology, Radar & Satellite Meteorology, Weather & Forecasting
Short Courses & Certifications	NASA Open Science 101, Media Relations (GeoMedia), Complete Carbon Capture, Usage, and Storage (CCUS), ExxonMobil Subsurface Fluid Flow, Petrel Fundamentals, Critical Minerals

LEADERSHIP ROLES & EXTRACURRICULAR INVOLVEMENT

GeoAmbassador Jan 2026 – Present	Department of Geology, UGA
Vice President Aug 2024 – May 2025	GeoClub, UF
Club Coordinator Aug 2024 – May 2025	Astraeus Student Organization, UF
Treasurer Jan 2024 – May 2025	Gator Astrobiology, UF

CONFERENCE ABSTRACT (PRESENTER*)

1. **Ruse, J.***, Williams, A.J., Gant, P.G., Siew, E., “Lipid Biosignatures on Mars: Implications for Life Detection on Mars.” *UF Spring Undergraduate Research Symposium*. Vol. 26. 2025. Gainesville, FL. Poster presentation.
2. **Ruse, J.***, Williams, A.J., Gant, P.G., Siew, E., “Lipid Biosignatures on Mars: Implications for Life Detection on Mars.” *Lunar and Planetary Science Conference*. Vol. 56. 2025. Abstract #2854. The Woodlands, TX. Poster presentation.
3. **Ruse, J.***, Meert, J.G., “Using the Bayesian Statistical Framework for Testing Paleomagnetic Reconstructions.” *Florida Undergraduate Research Conference*. Vol. 14. 2024. Jacksonville, FL. Poster presentation.
4. **Ruse, J.***, Meert, J.G., “Using the Bayesian Statistical Framework for Testing Paleomagnetic Reconstructions.” *UF Fall Undergraduate Research Symposium*. 2023. Gainesville, FL. Poster presentation.