

Samuel Blaine Harris | Ph.D. Student

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<https://samuelbharris.github.io/>

RESEARCH INTERESTS

Radar remote sensing, laboratory analogs of planetary bodies, cosmic ray induced EM waves, environmental & coastal geophysics, peatland biogeochemistry.

EDUCATION

Ph.D. in Planetary Science *Expected 2029*
Purdue University, West Lafayette, IN

B.S. in Geosciences: Geology Concentration 2024
Florida Atlantic University, Boca Raton, FL

RESEARCH EXPERIENCE

Graduate Research Assistant *2024 - Current*
Purdue University, West Lafayette, IN
Advisor: Dr. Ali Bramson

- Currently investigating how dust layers in the Martian Polar Layer Deposits impact remote radar observations.

Undergraduate Research Assistant *2023 - 2024*
Florida Atlantic University, Boca Raton, FL
Advisor: Dr. Xavier Comas

- Investigated subsurface biogenic gas production within peatland environments through a combination of field observations and laboratory experiments.

Field Research Technician 2023
Florida Atlantic University, Boca Raton, FL

- Conducted geophysical and hydrogeologic field research as part of an NSF EAR-Hydrological Science project to investigate the hydrological dynamics of a series of peat bogs in northern Maine.

Field Research Technician 2022
Florida Atlantic University, Boca Raton, FL

- Conducted biogeochemical field research as part of an NSF GP-IMPACTS project to investigate the impact of dynamic biogenic gas production in peat on the geomorphology of the Everglades.

AWARDS

George Washington Carver Fellowship	2024
Purdue University Presidential Excellence PhD Award	2024
Purdue College of Science Graduate Student Travel Award	2024

FIELD EXPERIENCE

USF Volcanology Field School	2024
USF Coastal Geology Field School	2024
USF Hydrogeology Field School	2024
FAU Appalachian Field Camp	2024

CONFERENCE PRESENTATIONS

Harris, S. B., McGlasson, R. A., Bramson, A. M. (2025), Radar Reflections of Packets of Sub-Resolution Dust Layers Within Ice in Martian Analog Experiments, *56th LPSC*.

SKILLS

ArcGIS, GPRMax (EM simulation software), GPRpy, Python, XFDTD (EM simulation software)