

# Giovanni O. Bacon

Cellular: (305) 748-1327

Gdobacon@gmail.com

## EDUCATION

### **Purdue University (PhD Graduate)**

- Major: Atmospheric Planetary Science
- Research: Titan's Atmosphere
- Advisor: Dr. Alexandria V. Johnson

### **Embry Riddle Aeronautical University (Undergraduate)**

- Major: Astronomy and Astrophysics
- Dean's List
- Minor: Computer Science and Mathematics
- Graduated

## HIGHLIGHTS

- NASA published Co-Author
- Experienced programmer
- Experienced researcher
- Studied abroad

## SKILLS

- **Projects:**
  - **Cloud Formation and Effects in Titan's Atmosphere (PhD)**
  - Lunar Sodium Exosphere Coronagraphic Observations (**Published**)
  - Simulations of Solar Wind Sputtering on Mercury (**Published**)
  - Analog Astronaut Mission
  - Massive Star Formation in IRDCs
- **Computer Experience:**
  - NCL
  - Maxim DL
  - C++
  - Python
  - AutoCad certified
  - SolidWorks
  - IDL

## AWARDS

- **NSF Graduate Research Fellowship Program (2022)**
- Purdue Doctoral Fellowship (2022)
- Office of Undergraduate Research's Top Mentor (2022)
- Embry Riddle's Discovery Day Top Undergraduate Research Presentation/Poster Award (2022)
- Embry Riddle's Discovery Day Top Undergraduate Research Presentation/Poster Award (2021)
- AAS' Division of Planetary Science (DPS) Hartmann Grant (2020)

## EXPERIENCES

### **Purdue University (Earth, Atmospheric, and Planetary Science Department)**

PhD Student/Researcher - West Lafayette, IN (Aug. 2022 - Present)

- Creating and conducting modeling research
- Interpret data to address various tasks
- Extracting, formatting, and plotting data using NCL
- Mentor and supervise undergraduate researchers

### **NASA Goddard Space Flight Center**

Research Assistant - Greenbelt, MD (Dec. 2018 - May 2022)

- Utilize Maxim DL to retrieve data
- Correlate data to address various tasks
- Formatting data and results in Fortran
- Maintain an efficient self-driven pace

### **Office Of Undergraduate Research Ambassador (Embry Riddle Aeronautical University)**

Mentor - Daytona Beach, FL (May 2021 - May 2022)

- Connect students with scientist for research opportunities and exposure
- Conduct community outreaches
- Guide students looking for research opportunities

### **NASA's Space Trek Academy (Kennedy Space Center)**

Flight Director - Merritt Island, FL (March 16, 2020 – March 23, 2020)

- Coordinating a team to send a weather balloon and collect atmospheric data
- Managing success and efficiency of overall project and data retrieval

### **NASA/USRA SOFIA Telescope**

Intern Researcher - Daytona Beach, FL (Sep. 2020 - Aug 2021)

- Manipulating and troubleshooting code algorithms to make concise graphs
- Deducing data of ionized Carbon clumps in Infrared Dark Clouds harboring young massive stars

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## **PROJECTS**

- **“Cloudy with a Chance of Exploding Rain: Cloud Microphysics and Rain Production on Titan”**
  - Purdue University
- **“SDTrimSP Simulations of Solar Wind Sputtering on Mercury: A Sensitivity Study to Establish a Best-Practice”**
  - NASA's Goddard Space Flight Center
- **“Mitigate Deconditioning Syndrome using Resistive Exercise as a Countermeasure”**
  - Embry-Riddle Biomechanical Analysis Laboratory (ERBAL)
- **“Lunar Sodium Velocity Distributions Observations with a Fabry Perot”**
  - Embry-Riddle Physical Sciences Department
- **“Orbital Evolution of Dust Size Particles Released From Catastrophic Asteroid Disruption”**
  - Embry-Riddle Physical Sciences Department
- **“Lunar Sodium Exosphere Coronagraphic Observations”**
  - NASA's Goddard Space Flight Center
- **“Characterizing CII Line Emission In Massive Star Forming Clumps”**
  - NASA's Stratospheric Observatory for Infrared Astronomy(SOFIA)

## **PRESENTATIONS**

- Purdue University's Bridge Conference 2022
- USRA's Mercury Exploration Assessment Group (MExAG) 2022
- Embry-Riddle's Research Symposium 2022
- AAS' Division of Planetary Science (DPS) 2020
- Embry-Riddle's Discovery Day 2021

## **VOLUNTEERING/OUTREACH**

- Purdue University BRIDGE Mentor (Mentor)
- Purdue University's “SuperHeroes of Science” (Speaker)
- Purdue University's Science Day (Speaker/Guide)
- Embry Riddle Aeronautical University's Astronomy Open House (Speaker/Guide)
- Embry Riddle Undergraduate Mentor (Mentor)
- National Society of Black Engineers (Speaker)
- National Society of Black Physicists (Speaker)

## **AFFILIATIONS**

- American Astronomical Society(AAS)
- National Society of Black Engineers (NSBE)
- National Society of Black Physicists (NSBP)
- Embry-Riddle's Association for Women in Mathematics
- Embry-Riddle's Society of Women in Space Exploration
- Embry-Riddle's Astronomy Club