

# Brian C. Ferrari

📞 (407)-483-2349 • ✉ Brian.Ferrari@ucf.edu  
🌐 <https://github.com/Cavenfish> • 🌐 <https://github.com/Cavenfish>  
Languages: English (Fluent), Brazilian Portuguese (Fluent)

## Education

<b>Ph.D. Physics</b>	<b>2019–Present</b>
<i>University of Central Florida, Orlando, FL</i>	<i>GPA: 3.625</i>
<b>B.S. Physics, minor in Mathematics</b>	<b>2014–2018</b>
<i>University of Central Florida, Orlando, FL</i>	

## Awards

**2020:** – Conference Travel Award (UCF CRT52-324)  
**2019:** – outReach for the Stars Award  
– FL-AVS Short Course on Surface Science & Nano-materials 1st Place Award  
**2018:** – Society of Physics Students Chapter Research Award  
– Conference Travel Award (UCF CRT50-493)  
**2016:** – Award for Outstanding Leadership in Physics Outreach at UCF

## Professional Experience

### Research History.....

<b>Graduate Research Assistant</b>	<b>2019–Present</b>
<i>University of Central Florida, Orlando, FL</i>	
<b>Undergraduate Research Assistant</b>	<b>2016–2018</b>
<i>University of Central Florida, Orlando, FL</i>	

### Employment History.....

<b>Graduate Teaching Assistant</b>	<b>2019–Present</b>
<i>University of Central Florida, Orlando, FL</i>	
<b>Undergraduate Teaching Assistant</b>	<b>2017–2018</b>
<i>University of Central Florida, Orlando, FL</i>	
<b>Machinist Apprentice</b>	<b>2016–2018</b>
<i>University of Central Florida, Orlando, FL</i>	

## Leadership

<b>Student Chapter Chairman</b>	<b>2019–Present</b>
<i>American Vacuum Society at the University of Central Florida</i>	
<b>Research Intern Supervisor</b>	<b>Summer 2019</b>
<i>University of Central Florida, Orlando, FL</i>	

## Funding

<b>\$400.00</b>	<b>2020</b>
Conference Travel Allocation	UCF CRT52-324
<b>\$400.00</b>	<b>2018</b>
Conference Travel Allocation	UCF CRT50-493
<b>\$2000.00</b>	<b>2017–2018</b>
National Society of Physics Students Chapter Research Grant	

## Publications

Citations: 2 ♦ h-index: 1 (April 2020 using Google Scholar).....

- [1] Ryan C. Fortenberry, Daniel Peters, **Brian C. Ferarri**, and Christopher J. Bennett. Rovibrational spectral analysis of CO<sub>3</sub> and C<sub>2</sub>O<sub>3</sub>: Potential sources for O<sub>2</sub> observed in comet 67P/churyumov–gerasimenko. *The Astrophysical Journal*, 886(1):L10, nov 2019.
- [2] **Brian C. Ferarri**. AutoGAMESS: A Python package for automation of GAMESS(US) Raman calculations. *Journal of Open Source Software*, 4(41):1612, sep 2019.
- [3] **Brian C. Ferarri** and Chris J. Bennett. A comparison of medium-sized basis sets for the prediction of geometries, vibrational frequencies, infrared intensities and raman activities for water. *Journal of Physics: Conference Series*, 1290:012013, oct 2019.

## Conference Experience

Talks.....

- [1] **Brian C. Ferarri**, Katerina Slavicinska, and Chris J. Bennett. Electron irradiation of astrophysical ice analogues: implications for the formations of biomolecules on enceladus. In *Presented at Florida Chapter of American Vacuum Society Symposium*, 2020.

Workshops.....

- Brian C. Ferrari. Digital Logic Circuits Workshop. *UCF Raspberry Jam*, Oct 2018.
- Brian C. Ferrari. Introductory Python Coding Workshop. *UCF Raspberry Jam*, Oct 2018.

Posters.....

- [1] **Brian C. Ferarri**, Nestor F. Aguirre, and Chris J. Bennett. Experimental study of methane fragmentation and recombination from low energy electron interactions. In *Poster Session of the Florida Chapter of American Vacuum Society Symposium*, 2019.
- [2] **Brian C. Ferarri** and Chris J. Bennett. A comparison of medium-sized basis sets for the prediction of geometries, vibrational frequencies, infrared intensities and raman activities of water. In *Poster Session of the 30th annual Conference on Computational Physics*, 2018.

Organizing.....

<b>UCF Raspberry Jam</b>	<b>2018</b>
<a href="https://sites.google.com/site/ucfraspberryjam/home">https://sites.google.com/site/ucfraspberryjam/home</a>	Short Course

## Programming Languages

---

**Advanced:** Python

**Intermediate:** Julia, Fortran, C/C++

**Novice:** Mathematica, Shell Scripting, HTML, CSS/Less

## Teaching Assistant Experience

---

Course	Role	Sections
○ Physical Science	Grader	– 2
○ Physics 1 for Scientists and Engineers	Grader	– 2
○ Physics 2 for Scientists and Engineers	Studio/Scale-up TA	– 3
○ College Physics 1	Lab and Recitation Instructor	– 2
○ College Physics 2	Studio/Scale-up TA	– 1

## Interests

---

Soccer – Tennis - Volleyball – Rock Climbing – Slacklining – Performing Stand-up Comedy – Kayaking – Robotics – DIY Home Automation – Video Game Design