Rajib Rezwan Chowdhury

8342 Ludington Circle, Orlando, FL 32836
+1 561 325 2539
rajib.chowdhury@knights.ucf.edu
https://rajibchowdhury.github.io/

EDUCATION

B.S. in Physics and Computer Science CGPA: 3.9 MGPA: 4.0   Fall 2019 - Present
University of Central Florida, Orlando, FL

Relevant Coursework:
Classical Mechanics, Electricity and Magnetism I, General Physics I-III, Calculus I-III, Organic Chemistry I, Ordinary Differential Equations, Computer Science II, Linear Algebra

EXPERIENCE

CREOL Research Assistant   Spring 2020 - Present
College of Optics and Photonics, Orlando, FL

- Working with Dr. Yehuda Bramain to develop models of chaotic phenomena within arrays of superconducting Josephson junctions.
- Wrote numerical solver of nonlinear differential equations using Runge-Kutta and Euler's methods in the C programming language.
- Replicated figures from known literature and used gnuplot software to analyze time series data and guide analytic solutions to nonlinear systems of equations.
- Design of Josephson Junction based memory design and microwave radiation waveguide transmission

Supplemental Instruction Leader   Fall 2020 - Present
University of Central Florida, Orlando, FL

- Leads four one hour tutoring sessions a week to help students with course material and study skills
- Holds regular test review sessions with 80+ attendees
- Maintains WordPress site with session recordings and additional practice content: https://ucfsi.wordpress.com/physics-using-calculus-ii-with-rajib/
- Communicates with Professor about student performance and course material

Arecibo Observatory Research Assistant   Summer 2020
Arecibo Observatory, Arecibo, Puerto Rico

- Member of the APPSS survey. Working with Arecibo Observatory (world's second largest single aperture telescope) and a coalition of universities to analyze HI spectral data collected from ALFALFA survey.
- Made extensive use of TOPCAT software to study Pisces-Perseus supercluster from 7 beam L-band receiver, and replicated functionality in Python.
- Involved in planning of future galactic surveys, including the future operation of the ALPACA 40 beam receiver.

Vice President of Books for Rwanda   Fall 2019 - Spring 2020
University of Central Florida, Orlando, FL
- Worked with Student Government of UCF Executive Branch and SGLC to fundraise money and collect books for schoolchildren in Rwanda, providing over 500 books.
- Created a website and reached out to community leaders for support at booksforrwanda.wixsite.com/website

Student Government Leadership Council   Fall 2019 - Spring 2020
University of Central Florida, Orlando, FL
- Mentorship program within UCF Student Government
- Traveled to Tallahassee, FL to talk with legislators to advocate for issues such as food and housing insecurity on behalf of the students of UCF.

PRESENT-ATIONS		
N Bodies and Orbital Resonance among the Moons of Jupiter		12/2020
Giving Praise in your SI Sessions		10/2020
Planning of Future Surveys with Arecibo		7/2020

SKILLS

Python + Jupyter Notebook
C + Java Programming Languages
Numerical Methods (Runge-Kutta, Fourier Analysis)

EXTRA-CURRICULAR SERVICE		
Kumon Tutoring Center, *Math and Reading Tutor*		2016 - 2017
JFK Medical Center, *Volunteer*		2017 - 2018
Max Planck Florida Institute for Neuroscience, *Visitor*		2017 - 2018