Michael Smith

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Professional Website: mjosmith.github.io Research Website: condorarraytelescope.org

EDUCATION

Stony Brook University, Stony Brook, NY   May 2021
Bachelor of Science in Physics and Astronomy & Planetary Science
1st Major GPA *(Physics): 3.81 /4.0*   ***2nd Major GPA*** *(Astronomy): 3.90 /4.0*

TEACHING AND RESEARCH EXPERIENCE

Astronomy Undergraduate Research, Stony Brook University   Nov. 2019-Present
Condor Array Telescope, Dr. Kenneth Lanzetta

- Compiled code to optimize the characterization of the PSF over large angles to study low-surface-brightness outer regions of the Milky Way, LMC, SMC and distant galaxies

- Developed code to simulate images of a selected field of the sky to push through our data analysis pipeline in preparation to deploy the array telescope to Chile

- Developing a user friendly observation request system for our telescope and a "credit" system for allocating observing hours to other programs such as 20% of available time to HBCUs and the University of Chile

Undergraduate Teaching Assistant, Stony Brook University   Aug. 2019 - May 2020
- Undergraduate TA for a 200 level Astrophysics Course
- Learned critical adaptation skills as an instructor in the shift to online learning due to COVID-19
- Held weekly office hours to assist with homework problems and exam review
- Offered a group lesson to students in preparation for the final exam

College Intro-Level Physics Tutor   Aug. 2020 - Present
- Regularly scheduled lessons (6-8) hours a week with a client for their college intro physics sequence
- Prepared lessons and assigned supplemental practice problems
- Provided the student with additional materials outside of scheduled lessons

High School Level Physics and Math Tutor   Nov. 2019 - May 2020
- Assist with difficult topics and supplied supplementary lessons
- Provided additional resources including online videos and extra practice

PUBLICATION IN PREPARATION

"An Optimal Method of Determining the Point Spread Function at Large Angles"   Nov. 2020
(Nearing completion for submission)

HONORS AND AWARDS

Feb. 2020	Sigma Pi Sigma National Physics Honor Society Member
Fall 2017 - Present	Dean's List
Fall 2017	Stony Brook Campus Scholarship ($26,000 for four years)
Spring 2017	NJ Passaic County Board of Education Scholarship

PRESENTATIONS

May 2020	"American Museum of Natural History Astronomy Seminar" Condor Array Telescope research project was presented along with news of developments and future plans.
May 2020	"URECA Celebration: Undergraduate Symposium" Poster presentation of compiled software used in the development of Condor Array Telescope and PSF optimization.

WORK EXPERIENCE

Office Assistant, Stony Brook University, NY — May. 2018 - Present
- Maintain and manage daily office tasks for a campus residences office.
- Personal assistant to the Area Director during the Residence Hall Director job recruitment season
- Trained and lead new employees through operations of the office and provided feedback on performance

Brand Representative, Abercrombie & Fitch. , NY — Feb. 2019 - Present
- Maintain and manage the store and assist customers.
- Engage with customers and build communication skills as a retail worker
- Trained and lead new employees through operations of the store and provide feedback on performance

LEADERSHIP ROLES AND ACTIVITIES

President of Residential Hall Council, Stony Brook NY   Sep. 2020 - May 2021

- Chairs and preside over all Executive Board meetings, an elected position
- Manage a yearly budget, organize, and plan programs and activities for residential students
- Provide a forum for the free interchange of ideas, problems, questions, and solutions within the building
- Attend Leadership Training

Vice President of Residential Hall Council, Stony Brook NY   Sep. 2017 - May 2018

- Chairs and preside over meetings with the general body of residential students, an elected position
- Attend leadership training and follow up with team members delegated tasks

Society of Physics Students   Spring 2019 - Present

Astronomy Club   Spring 2019 - Present

Stony Brook University Marching Band   Aug. 2017 - Sep2018

SKILLS

Programming Languages (in order of experience)**:** Python, Fortran, Java, MATLAB, C++, IDL

Applications: LaTeX, Github, Gnuplot, ds9, Wolfram Mathematica, Microsoft Excel, Microsoft Office

Operating Systems: Linux, Mac OS, Windows

Observing Equipment: Mt. Stony Brook 14-inch telescope, Condor Array Telescope, Large Format CMOS Cameras, CCD cameras, Stony Brook Educational Spectrograph