**JAMES LILLY**[jlilly365@yahoo.com](mailto:jlilly365@yahoo.com) ● [jlilly364.github.io](file:///C:\Users\Jimmy\Documents\Personal\Job\Resume\jlilly364.github.io)

(443) 875-7192 ● Seattle, WA

**EDUCATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**University of Wyoming** Laramie, WY

*Master of Science in Physics* May 2022

Cumulative GPA: 4.00/4.00

**University of Arizona (UA), Honors College** Tucson, AZ

*Bachelor of Science in Physics and Astrophysics with Honors* May 2020

Cumulative GPA: 3.78/4.00

**TECHNICAL SKILLS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Programming Languages: Python, C, HTML, Visual Basic, IRAF, SQL

Software/Libraries: Git, Microsoft Office Suite, Terminal, LaTeX, Anaconda, Zoom

Operating Systems: Windows, Unix, Linux

**PROJECTS/RESEARCH\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**University of Wyoming** Laramie, WY

*Graduate Research Assistant* March 2021 – July 2022

* Spearheaded development of Python pipeline to analyze Hubble Space Telescope (HST) data
* Identified stellar associations and analyzed their properties as part of global PHANGS collaboration
* Facilitated data collection and analysis in Python and Excel for peer-reviewed research publications

([Lee et al. 2021](https://arxiv.org/pdf/2101.02855.pdf), [Turner et al. 2022](https://arxiv.org/abs/2209.02872), [Larson et al. 2022](https://arxiv.org/abs/2212.11425), [Whitmore et al. 2023](https://arxiv.org/abs/2301.03689), Scibelli et al. 2023)

* Delivered weekly verbal and written reports to variety of stakeholders on key research initiatives

**University of Arizona/NASA Space Grant** Tucson, AZ

*Undergraduate Research Assistant* Aug 2018 – May 2020

* Analyzed hierarchical structure of molecular clouds within the Milky Way Galaxy using Python
* Evaluated radio astronomy observations with Python to determine properties of prestellar cores

**WORK EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Seattle Public Schools** Seattle, WA

*Substitute Teacher* September 2022 – Present

* Shepherded “Precalculus” and “Math in Society” classes at Nova High School as long-term substitute
* Developed and presented tailors lesson plans to groups of 10+ students in grades 2-8 and 11-12
* Collaborated with teachers to ensure seamless continuation of lessons on short notice

**University of Wyoming** Laramie, WY

*Graduate Teaching Assistant* Aug 2020 – May 2021

* Guided weekly in-person problem-solving sessions and online labs for undergraduate physics courses
* Collaborated with lab coordinator to prepare course learning materials and troubleshoot experiments

**Vatican Observatory Foundation** Mt. Graham, AZ

*Telescope Operator* Jun 2019 – Aug 2019

* Facilitated observations for NASA’s Transiting Exoplanet Survey Satellite (TESS) at the Vatican Advanced Technology Telescope (VATT)
* Coordinated operational procedures with remote observers and 3 other telescope technicians