# **Ashley Gilliam**

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#### **EDUCATION**

University of Texas Health Science Center, School of Public Health

Master of Science in Biostatistics, Cumulative GPA: 4.00/4.00

Houston, TX Expected May 2024

University of Texas at Austin, College of Natural Sciences

Austin, TX

Bachelor of Science in Computational Biology, Certificate in Applied Statistical Modeling, Cumulative GPA: 3.95/4.00, Honors: Graduated *cum laude*, Recipient of Endowed Presidential Scholarship (2021), College Scholar (2020-2022), University Honors (2018-2022)

#### **WORK EXPERIENCE**

# **GET PHIT Intern, Texas Health Care Information Collection**

January 2023-Present

- Create and present independent report on cervical cancer and HPV rates in women using state-wide healthcare data
- Use SAS to analyze outpatient and inpatient data
- Simulate writing a legislative report about findings to present to state government

## **Graduate Research Assistant, UTHealth SBMI**

**November 2022-Present** 

- Determine variable relationships through a variable pairing algorithm across 40 datasets in RADx project
- Annotate mentions of datasets and repositories across hundreds of published articles using LANN

### Course Grader Mentor, Biology Grader, UT Onramps

September 2020-August 2022

- Assist with management of high school Biology courses across 34 districts in Texas
- Grade lab assignments, quizzes, and exams for over 700 students
- Schedule meetings for calibrations and instruct 5 peer graders on how to accurately grade assignments

### RESEARCH EXPERIENCE

### **Cambronne Lab, The University of Texas at Austin**

**January 2020-May 2021** 

- Optimized a genetically encoded mitochondrial NAD+ sensor using site-saturated mutagenesis and fluorescent assay screening in bacterial and mammalian cells
- Mentored peer on project and research techniques such as PCR, bacteria culture, and primer design
- Engaged in lab meetings and literature review with 11 lab members

## Microbe Hackers Lab, UT Freshman Research Initiative

January 2019-August 2020

- Isolated and identified symbionts of the Cyanobacteria species O. lutea such as S. maltophilia and A. xylosoxidans
- Transformed cyanobacteria with GFP+KANr plasmids via conjugation, reintroduced isolated transconjugants into *O. lutea* communities and observed via fluorescent microscopy
- Mentored eight freshman students on scientific techniques and how to conduct research and led Cyanobacteria team
- Graded quizzes and lab report assignments for 48 students

### SKILLS AND ABILITIES

**Computational:** Microsoft Suite, R, Python, STATA, SAS, SQL, data visualization, cleaning, and annotation, 90+ WPM **Wet Lab:** PCR, gel electrophoresis, DNA extraction and sequencing, protein induction and expression, mammalian cell culture, transfection, flow cytometry, streaking, bacterial culture, transformation, conjugation, reintroduction