

# Bailey E. Quinn

they/them

baileyequinn@gmail.com | 352.213.2198  
<https://darkghastful.github.io/Portfolio/>

## PUBLICATIONS

- [1] B. E. Quinn, J. A. R. Rodríguez, E. K. Sam, et al. The nasal microbiome in early infancy is primarily shaped by the maternal nasal microbiome. *Journal of Allergy and Clinical Immunology*, In Press, Journal Pre-proof.

## EXPERIENCE

### WASHINGTON UNIVERSITY IN ST. LOUIS MEDICAL SCHOOL DIVISION OF INFECTIOUS DISEASE | BIOINFORMATICIAN

Sept 2024 - Aug 2025 | St. Louis, MO

- Identified single nucleotide polymorphisms that were significantly more associated with a viremic non-progressor status among a population of people living with HIV through whole exome sequencing analysis.
- Processed and evaluated single cell sequencing data to evaluate the relative expression of genes in immune cells between HIV infected samples and controls.
- Developed a RNAseq pipeline to process, reconstruct, assign, and evaluate the tropism switch that occurs over the course of an HIV infection.

### WASHINGTON UNIVERSITY IN ST. LOUIS MEDICAL SCHOOL DIVISION OF ALLERGY AND IMMUNOLOGY | BIOINFORMATICIAN

Aug 2022 - Sept 2024 | St. Louis, MO

- Wrote a publication, developed a pipeline, and conducted statistical analysis for a cohort of mother infant dyads. This was a study with three participating hospitals to evaluate the microbial transfer between the nasal microbiome of a mother and infant across different regions.
- As a continuation of the previous project, I evaluated the association between the infant saliva and gut microbiome to various maternal microbiomes.
- Identified differences in the virome of individuals with severe Asthma when compared to that of a healthy population.
- Compared the nasal mycobiome of a cohort of Asthmatic individuals and controls utilizing 18s rRNA sequencing data.

### UNIVERSITY OF MISSOURI | UNDERGRADUATE RESEARCH ASSISTANT

Aug 2018 - May 2021 | Columbia, MO

- Created a lesson plan for a classroom accessible experiment implemented in Missouri middle schools through a science in education program.
- Maintained a line of macrophage cells through cell passage, made media and assisted in experiments.

## ORGANIZATIONS

### SOUTH BROADWAY ART PROJECT | WORKING MEMBER

Mar 2024 - Present | St. Louis, MO

### MIZZOU STEEL BRIDGE TEAM | GRAPHICS

Aug 2018 - May 2022 | Columbia, MO

### BIOCHEMISTRY CLUB

Aug 2018 - May 2022 | Columbia, MO

### COLLEGE MENTOR FOR KIDS

Aug 2019 - Dec 2021 | Columbia, MO

## EDUCATION

### UNIVERSITY OF MISSOURI

BACHELOR OF SCIENCE IN  
BIOCHEMISTRY  
2022 | Columbia, MO  
GPA 3.4

## SKILLS

### PROGRAMMING

R • Python • SQL • Linux • Docker  
• Shiny • AWS • REST API

### BIOINFORMATICS

Single cell • Whole genome •  
RNAseq • 16s • 18s • Virome

### DATA

Pipeline development • Statistical  
analytics • Machine learning •  
Clustering • Visualization •  
Multi-omics • Patient data

## PRESENTATIONS

### DOCKER/18S WORKSHOP

Nov 2023 | St. Louis, MO  
Ran a workshop detailing the use of  
Docker images and how to process  
and analyze 18s rRNA sequencing  
data.

### REGENERATIVE MEDICINE WIP

Apr 2023 | St. Louis, MO  
Presented work on the transmission  
of bacteria from the maternal nasal  
microbiome to the infant nasal  
microbiome.

## ACHIEVEMENTS

### BLACK AND GOLD SCHOLAR

Aug 2018 - May 2022 | Columbia,  
MO

### MIZZOU ALUMNI SCHOLAR

Aug 2018 - May 2022 | Columbia,  
MO

### HONORS DISCOVERY FELLOWSHIP

Aug 2018 - May 2019 | Columbia,  
MO