Bailey E. Quinn

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*, 2025.

EXPERIENCE

WASHINGTON UNIVERSITY IN ST. LOUIS MEDICAL SCHOOL DIVISION OF INFECTIOUS DISEASE | Bioinformatician
Sept 2024 - Aug 2025 | St. Louis, MO

- Built reusable ETL pipelines in R/Python utilizing REST APIs and headless Chrome to ingest, clean, and analyze 0.5–2 TB datasets; parameterized for reproducibility.
- Designed an R package to map DNA mutations to mutated protein sequences and premature truncation using live API queries.
- Administrated lab databases and sequence stores for data validation, summarization, and analysis.
- Facilitated large‐scale data transfers (3–9 TB) with verification.

WASHINGTON UNIVERSITY IN ST. LOUIS MEDICAL SCHOOL DIVISION OF ALLERGY AND IMMUNOLOGY | Bioinformatician
Aug 2022 - Sept 2024 | St. Louis, MO

- Conducted analytics for a three-hospital cohort study; built ETL pipelines in R, executed PERMANOVA/ordination/clustering, and was first author on a the corresponding publication.
- Collaborated with both clinicians and researchers to translate findings into clear visuals and summaries for publication and presentations.
- Administrated lab databases and sequence stores for data validation, summarization, and analysis

UNIVERSITY OF MISSOURI | Honors Fellow / 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 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

LANGUAGES
Python • R • SQL • Linux • Bash

ANALYTICS AND ML
regression • conditional diffusion • experimental design

DATA ENGINEERING
REST API integration • headless scraping • version control

PLATFORMS
Jupyter • Linux • Docker • Git • Markdown

PRESENTATIONS

DOCKER/18S WORKSHOP
Nov 2023 | St. Louis, MO
Created and ran an interactive workshop designed to teach the processing and storage of sequencing data, an introduction to statistical analytics, and how to use docker images on a remote server.

REGENERATIVE MEDICINE WIP
Apr 2023 | St. Louis, MO
Presented my research detailing the transmission of bacteria from the maternal nasal microbiome to the infant nasal microbime.

ACHIEVEMENTS

BLACK AND GOLD/ALUMNI SCHOLAR
Aug 2018 - May 2022 | Columbia, MO

HONORS DISCOVERY FELLOWSHIP
Aug 2018 - May 2019 | Columbia, MO