# Jazlynn Bailey

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Motivated undergraduate student in Biology with a minor in IT, proficient in Python and RStudio. Deeply passionate about biotechnology and eager to acquire hands-on experience in the field. Demonstrated research experience with giant viruses and practical roles in crisis counseling and content marketing. Involved in BioTAP and The Women's Network, maintaining a GPA above 3.4 while earning multiple academic scholarships.

## Education

**Bachelor of Science in Biology, minor in Information Technology**— University of Massachusetts, Amherst **September 2022 - May 2026**

**Relevant Coursework**: Statistics using R Studio, Cellular and Molecular Biology I and II with lab, Organic Chemistry I and II with lab, Intro Programming, Intro Informatics

## Skills

- **Technical Skills:** Python (programming), RStudio (data analysis), Quarto (report generation), Unix Command Line (operating system navigation), Jalview (bioinformatics), ImageJ Fiji (image processing), BLAST (sequence alignment), Excel (data management)
- **Soft Skills:** Critical thinking, adaptability, problem solving, teamwork, attention to detail, time and project management, creativity

## Projects

**National Ecological Observatory Network (NEON) Terrestrial Giant Viruses and Virophages** **September 2024 - Present**

- Researched phylum Nucleocytoviricota, including pathogens and biocontrol agents.
- Developed bioinformatics methods to analyze NEON metagenomic data.
- Used Python and R for data analysis on high-performance computing systems.
- Studied giant virus adaptation to new hosts and environmental changes.

**Comprehensive Inventory and Mapping of Aquatic Species Diversity in Freshwater Stream Habitats** **January 2023 – May 2023**

- Conducted inventory and identification of aquatic species in freshwater habitats to assess biodiversity.
- Utilized Excel and identification guides for systematic data tracking.
- Collaborated to map species distribution and compile findings into a final report.

**Comparative Analysis of Lactose and Galactose on Lac Operon Expression in E. *coli* via GFP Fluorescence Measurements** **September 2022 - January 2023**

- Investigated GFP expression in E. coli to compare lactose and galactose as inducers of the lac operon.
- Conducted serial dilutions and analyzed fluorescence with a spectrophotometer.
- Demonstrated lactose as the superior inducer, with significant statistical results.

**Identification of eCadherin-GFP and H2B-mCHerry DNA Plasmids Using Restriction Endonucleases and Gel Electrophoresis** **September 2022 - January 2023**

- Isolated plasmids from E. coli cultures to determine their identity.
- Utilized restriction endonucleases for digestion and gel electrophoresis for analysis.
- Analyzed DNA band size to identify plasmids.

## Experience

**Research Project Assistant**— *Blanchard Research Group*, Amherst **September 2024 - Present**

- Investigating forest microbial communities and their responses to climate change in the Pioneer Valley and Harvard Forest.
- Discovering novel bacteria and viruses with applications in biofuels and biotechnology

**Crisis Counselor** — *Crisis Text Line*, Remote **September 2024 - Present**

- Provided compassionate, non-judgmental support to individuals in crisis.
- Utilized active listening and collaborative problem-solving techniques to de-escalate situations.
- Developed and implemented safety plans to support clients in distress.
- Completed suicide prevention training to enhance crisis intervention skills.

**Content Marketing**— *The Women's Network*, Amherst **September 2024 - Present**

- Created marketing flyers and promotional materials to enhance visibility and outreach
- Managed social media accounts to engage audiences and promote events.
- Collaborated with team members to develop marketing strategies and campaigns.

## Organizations

**UMass Amherst Biological Talent Advanced Program (BioTAP)**

- Engaged in rigorous coursework, including a full-year Honors biology course emphasizing quantitative biology, genetics, and molecular biology.
- Developed laboratory skills in molecular techniques and scientific reporting through hands-on experiences and collaborative projects with faculty and upper-class mentors.

**UMass Commonwealth Honors College**

- Exploring diverse disciplines while maintaining a GPA above 3.4 and preparing for an Honors Thesis that showcases advanced research and creative skills.

**Active Minds**

- Participated in initiatives to destigmatize mental health, promoting awareness and support through events and outreach programs.

## Awards

- Lesley Small Scholarship - Opportunity for Women in STEM
- Dean's Award Scholarship
- Presidential Scholarship
- Academic Dean's List

## References

**Margaret Riley**, Professor and Lab Instructor. Contact: riley@umass.edu
**Laura Francis**, Professor and Lab Instructor. Contact: lifranci@umass.edu