

EMILY MANWELL

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PROFESSIONAL STATEMENT

Motivated and detail-oriented undergraduate pursuing dual majors in Biology and Music at Boise State University. Experienced in laboratory research, patient care, and interdisciplinary communication. Skilled in molecular biology, data analysis, and teaching complex concepts. Passionate about integrating science, art, and technology to advance research and education.

EXPERIENCE & EDUCATION

Boise State University – Bachelor of Science in Cellular, Molecular, and Biomedical Biology (*Expected Dec 2027*)

Bachelor of Arts in Music (*Expected Dec 2027*)

Minor in Chemistry and Spanish

St. Luke's Health System — Certified Nursing Assistant, Pre-Op (*2023 – Present*)

- Provide preoperative care and monitor patient vitals in a fast-paced surgical setting.
- Collaborate with nurses, anesthesiologists and surgeons to ensure procedural readiness and patient safety.
- Apply biological and medical knowledge to support high-quality patient outcomes.

Horizon Home Health and Hospice — CNA (*2019 – 2022*)

- Delivered end-of-life care with compassion and attention to patient comfort.
- Maintained accurate records and supported interdisciplinary teams in care coordination.

Veranda Senior Living — Assisted Living and Memory Care — CNA Team Lead (*2018 – 2019*)

- Supervised a team of CNAs in providing compassionate, high-quality care to residents.
- Coordinated care schedules and delegated assignments to ensure full staff coverage.
- Maintained compliance with healthcare standards.
- Recognized by leadership for reliability, professionalism, and strong interpersonal communication.

Certified Nursing Assistant — Certification Completion (*2018*)

- Completed state-approved CNA training focused on patient safety and infection control.
- Demonstrated proficiency in vital signs, patient mobility, and care documentation.
- Developed foundational clinical communication and teamwork skills in healthcare settings.
- Earned certification through Idaho State Board of Nursing following practical and written evaluation.

PROJECTS & RESEARCH

Glycocalyx in Eosinophilic Esophagitis Data Sonification — Vertically Integrated Research Program (*2025–Present*)

- Analyzing biological datasets to identify patterns in protein and sugar composition associated with Eosinophilic Esophagitis (EoE), an autoimmune condition affecting the esophagus.
- Utilizing computational tools (R, Python, and TidalCycles) to map biological data parameters to pitch, rhythm, and harmonic structure in generative music systems.
- Collaborating with biology, music, and computer science faculty to explore biological data visualization through sound as an innovative method for scientific communication.
- Preparing research documentation and presentation materials for poster sessions and undergraduate research symposiums, emphasizing the intersection of biomedical data and auditory design.

Research Presentation on Magnetotactic Bacteria (*2025*)

- Investigated magnetotactic bacteria distribution and their implications in biological sciences.
- Analyzed data using scientific literature review and computational biology techniques.
- Presented findings in academic settings, showcasing strong scientific communication skills.

AWARDS & ACCOMPLISHMENTS

- 5,000+ hours clinical experience
- 3.84 GPA – College
- 4.06 GPA – High School
- Top 10 Scholar nominee – College
- BSU Dean's List 2021-2022, 2025
- Phi Kappa Phi Member (*Present*)
- Biology Club Member (*Present*)
- Phi Sigma Rho – Alpha Nu Chapter (*Present*)
- Honors College Member (*Present*)