Jillian Higbee

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**SUMMARY**

Detail-oriented and proactive biochemistry student with a strong foundation in data analysis, laboratory techniques, and scientific research. Proven ability to manage multiple projects, conduct research, and communicate findings effectively. Passionate about contributing to medical affairs and scientific advancement through computational biology and wet lab work. Skilled in scientific communication, data analysis, and cross-functional collaboration.

**EDUCATION**

**B.S., Biochemistry**, Arizona State University, Tempe, AZ May 2026 (expected)

**GPA:** 3.79

**Relevant Coursework:** Anatomy, Programming for Biologists, Biophysical Chemistry, Biochemistry, Cancer Biology, Organic Chemistry, Physics, Chemistry, Physical Chemistry

**SKILLS**

**Lab:** Solution and Buffer Preparation, Chemical Safety and Handling, Quality Control Testing, Electrodeposition Instrumentation & Analysis

**Bioinformatics & Programming:** Python, Jupyter Notebook, Anaconda, NumPy, Pandas, Matplotlib, Seaborn, TrackPy (particle tracking for biological data analysis)

**Data Analysis:** Statistical modeling, experimental design, Microsoft Office Suite

**EXPERIENCE**

***Participant*, NASA L’SPACE Mission Concept Academy** May 2025 – Present

* Collaborated with interdisciplinary teams to develop mission proposals as the team astrobiologist
* Engaged in NASA-led seminars, technical design reviews, and mentorship sessions with engineers and scientists
* Gained experience in project planning, scientific communication, and integration of biological data into mission design

***Research and Development Intern***, **Rayn Innovations** Jul 2024 – Present

* Researched permalloy thin film materials (PDA seed layers, AZO, and ferrite films) for solar cell applications, including electrodeposition and electroless aqueous methods.
* Performed laboratory analysis, quality control checks, and calibration procedures to maintain data integrity and accuracy.
* Analyzed experimental data and provided technical reports on solar energy applications.

**Community Service**

***Volunteer*, Project Cure** May 2023 – Jul 2024

* Led efforts to organize and identify medical supplies for shipment, including repairing damaged devices to ensure functionality and readiness for delivery.
* Collaborated with a diverse team to identify areas of improvement and efficiently provide sustainable solutions.
* Gained experience in global healthcare and nonprofit sector challenges while demonstrating leadership in managing large teams effectively.

***Research Student*, Mosquito Biology Research** Aug 2023 – Dec 2023

* Conducted fitness and density studies on live *Aedes aegypti* mosquitoes, analyzing genetic and phenotypic traits under the supervision of Dr. Silvie Huijben.
* Performed daily mosquito larval rearing from first instar to adults while simultaneously assessing the mortality and sex of over 1000 mosquitoes.
* Presented research findings to peers and faculty, highlighting strong scientific communication abilities.