Katherine Brown

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Skills

- **Programing Languages:** Python(numpy, matplotlib, biopython, scikit-learn, qiskit) and R(ggplot2)
- Development Tools: Jupyter Notebook, Google Colab, Docker, Git
- Molecular Dynamic tools: AlphaFold3, ChimeraX
- Biophysics tools: PDB2PQR, APBS
- Laboratory techniques: Orchid tissue culture, PCR
- Research interests: Epigenetics, Molecular Dynamics, Space radiobiology

Experience

NeurAstra – Intern Feb 2025 – Present

- Conducting research on DSUP using biophysics and molecular dynamic software.
- Writing essays and summaries of selected scientific papers.

Odom's Orchids - Researcher

Aug 2024 - Present

- Assisted in laboratory setup and purchasing vital equipment.
- Orchid tissue culture techniques

Outliner – AI Tutor

Jun 2024 – Jan 2025

• Identified and documented errors in AI-generated content to improve accuracy.

Projects

GitHub - python scripts for GC content, kmers, and nucleotide frequency

Jan 2024 – Present

Education

Ave Maria University Sept 2016 – Jun 2020

Bachelor of Arts in Biochemistry

Certificates & Coursework

| UC Berkeley Extension – Data Structures | Jun 2025 – Present |
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| UC Berkeley Extension – Introduction to Programming | Jun 2025 – Present |
| Coursera (JHU) – Command Line Tools for Genomic Data Science | May 2025 – Present |
| UC Berkeley Extension – Statistics | Jan 2025 – May 2025 |
| Coursera (JHU) – The Data Scientist's Toolbox | <i>Nov 2024 – Nov 2024</i> |
| Coursera (UE) – Astrobiology and the Search for Extraterrestrial Life | <i>Nov 2024 – Nov 2024</i> |
| Coursera (JHU) – Algorithms for DNA Sequencing | Sept 2024 – Aug 2025 |
| Coursera (JHU) – Python for Genomic Data Science | Sept 2024 – Oct 2024 |
| Coursera (JHU) – Introduction to Genomic Technologies | Sept 2024 – Sept 2024 |
| Ed2go (UCF) – Introduction to Python | <i>Apr</i> 2024 – <i>June</i> 2024 |
| MIT xPRO – Quantum Computing Fundamentals | Sept 2023 – Dec 2023 |