Sarah E. F.

A driven geneticist, chemist, and programmer who thrives at the intersection of scientific fields.

Contact: sarahef13@gmail.com Webpage: https://sarahef13.github.io/

LAB SKILLS

Genetics	Chemistry	Programming
DNA & RNA Sequence Analysis	ICP Mass Spectrometry	Python & R Coding Languages
PCR & Gel Electrophoresis	Liquid Chromatography	SQL Relational Databases
Aseptic Technique	Serial Dilutions & Pipetting	GDP Notebook Keeping

EMPLOYMENT

Lab Technician for **Analytical Chemistry**   Nov. 2021 – Present

Pharmatech Labs: Quality Control, Lindon, UT

- Operated & maintained sensitive equipment—including ICP-MS, HPLC, & FTIR—and analyzed results
- Streamlined lab documentation to decrease turnaround time from 8.0 days in 2021 to 3.9 days in 2023

Graduate Assistant and **Peer Tutor, CRLA Level III Certified**   Feb. 2017 – Jan. 2020

Stevenson University: Academic Link, Owings Mills, MD

- Mentored tutors & educated students in organic chemistry, genetics, microbiology, & physics
- Collectively developed training materials, remedial lessons, & a test score database

RESEARCH

Software Development for **Genetic Sequence Alignment App**   Mar. 2023 – May 2023

Utah Valley University: Computer Science Department, Orem, UT

- Created a Python app for DNA analysis & alignment that accessed data from an NIH online repository
- Enhanced user experience & resolved errors via group feedback & independent troubleshooting

Neurodegenerative Disease Research and **Genetic Counseling Internship**   May 2018 – Aug. 2018

Johns Hopkins University: Institute of Genetic Medicine, Baltimore, MD

- Investigated molecular causes & neurologic manifestations of the disease *CSF1R*-Related ALSP
- Consolidated & diagnosed clients' DNA results and respectfully, privately informed them

"Annotation and Divergence of the *FASN3* Gene in Parasitoid Wasps"   Jan. 2018

Stevenson University: Biology Department, Owings Mills, MD

- Analyzed *FASN3*'s sequence across 6 species to predict its product, mechanism, & necessity
- Collaborated with 10+ institutions to advance knowledge of essential metabolic processes

"Design and Synthesis of the Antitumor Cisplatin Analogue, Cisnicklin"   Aug. 2017 – Dec. 2017

Stevenson University: Chemistry Department, Owings Mills, MD

- Adapted synthesis of Cisplatin to yield Cisnicklin, then tested cancerous DNA binding via fluorescence

EDUCATION

B.S. in **Bioinformatics** (Jan. 2022 – Aug. 2024) **Utah Valley University,** Orem, UT – Dean's List

B.S. in **Biochemistry** (Aug. 2016 – May 2019) **Stevenson University**, Owings Mills, MD – Summa Cum Laude