Abigail Lin

abigaillin35@gmail.com | (407) 803-1335
https://helloworld7-beep.github.io./
https://www.linkedin.com/in/abigail-lin-ufl

EDUCATION

University of Florida | B.S. Computer Science | Math Minor | Projected Graduation: May 2026

GPA: 3.82/4.00

PROFESSIONAL EXPERIENCE

REU Internship (Purdue University)

May 2025 - Present

Rosen Center For Advanced Computing | Purdue University

- Creating bioinformatics workflow templates using Bash, Slurm, Python, and Urwid that are easier to use and more accessible than Nextflow and Snakemake.
- Using Apptainer and Docker for container deployment and creation to organize dependencies.

Undergraduate Researcher

August 2024 - Present

UF AI Scholars | Voiniciuc Lab | University of Florida

- Generated 30 CSLA enzyme mutations using a Maximum Entropy (MaxEnt) machine learning model with HiPerGator.
- Automated experimental assays to analyze the effectiveness of generated enzyme mutations in synthesizing β-mannans.
- Conducted benchmarking of ProteinGym protein mutation scores using generative models such as ESM2 and SaProt.
- Fine-tuning the MaxEnt model using the experimental assay data from the generated enzyme mutations.

REU Internship (University of Central Florida)

May 2024 - July 2024

Applied Computational Mathematics REU | University of Central Florida

- Worked for 10 weeks as a summer undergraduate researcher, funded by the National Science Foundation.
- Created a Matlab solver of the forward scattering problem for an object with a thin coating and compared the results of the approximated coding via the impedance versus the transmission problem, with a final error of less than 10e-2.

Research Assistant

January 2024 - Present

Voiniciuc Lab | University of Florida

- Created programs in Python to automate synthetic biology lab work using 2 Opentrons OT-2 lab robots to decrease the human error of pipetting and increase efficiency.
- Wrote programs to automate the batch editing of GenBank files for Benchling using Biopython and Pandas.

COMMUNITY INVOLVEMENT

Phi Sigma Rho *January 2024 - Present*

- Participating in various sorority social and service events, fostering a supportive community for women in STEM fields.

PROJECTS

Societal and Economic Impacts of COVID Over Time (SEICOT) *March 2024 - April 2024*

- Built a website that queried 1,000,000+ tuples in a database using SQL, in order to provide a graphic overview of the societal and economic impacts of COVID over time.
- Led a group of 5 members, planned group meetups and proposal documents to facilitate our collaboration.

SKILLS

Relevant Courses: Linear Algebra for Data Science, Intro to Numerical Analysis, Algorithm Abstraction and Design, Introduction to Probability, Mathematics for Intelligent Systems (Fall 2025)

Languages: Python, Bash, C++, Javascript, MATLAB

Frameworks & Libraries: Git, Pytorch, Pandas, Numpy, Biopython, Urwid

Other: Github, Microsoft Excel, Microsoft Word, Microsoft PowerPoint