KATIE HUANG

Weston, MA | Katie_Huang@student.uml.edu | www.linkedin.com/in/KatieHuang20
https://kthuang20.github.io/Katie_Portfolio/

Education

University of Massachusetts Lowell – Lowell, MA **Dec. 2024**
Master of Science in Biomedical Engineering and Biotechnology
Cumulative GPA: 4.00/4.00

University of Massachusetts Lowell – Lowell, MA **Dec. 2023**
Bachelor of Science in Biomedical Engineering
Cumulative GPA: 3.92/4.00
Chancellor's List: Fall 2023; *Dean's List:* Fall 2020, Spring 2021, Fall 2021, Spring, 2022, & Fall 2022

Skills

Programming: Python, JupyterLab, pandas, matplotlib, statsmodels, scikit-learn, streamlit, conda, bash, GIT
Data science concepts: hypothesis testing, data exploration, cleaning, visualization, and modeling
Soft skills: adaptable, detail oriented, quick learner, self-motivated, collaboration, effective communication

Professional Experience

Platform Intern **Jan. – May 2023**
ImmuneID – Waltham, MA
- Developed and optimized an efficient phage quantification protocol, reducing time required by 50%
- Self-taught Python to analyze self-gathered data and visualize phage titer differences using matplotlib

Academic Experience

Graduate Researcher **Sept. 2023 – Present**
Computational Disease Biology Lab, University of Massachusetts Lowell – Lowell, MA
- Developing an ensemble logistic regression model to predict novel treatments for existing drugs by assessing on similarities mRNA expression profiles
- Summarized statistical and visually analyses, confirming hypothesis that drugs with shared treatments exhibit similar changes on gene expression
- Co-mentoring a junior researcher, fostering independence on a self-directed project by providing support, resources, and collaboration
- Communicate technical findings effectively to a multidisciplinary team during lab meetings, using accessible language
- Maintain thorough documentation of analyses in Jupyter notebooks and continually optimize algorithms

Undergraduate Researcher **Sept. 2022 – Jan. 2023**
Pain Research Lab, University of Massachusetts Lowell – Lowell, MA
- Developed a Python algorithm to streamline the analysis of high-frequency oscillations in NeuroExplorer with minimal user interface required
- Collaborated with a non-programming professor to outline and translate the analysis process in computer steps

Leadership

Peer Tutor for Organic Chemistry I, Chemistry I, & II **Nov. 2021 – Dec. 2022**
University of Massachusetts Lowell Centers for Learning – Lowell, MA
- Actively listened to each student to pinpoint the gaps in each student's knowledge of fundamental concepts
- Tailored explanations and guidance for each student using different techniques (i.e., simple words, 3D structures, tables, graphics) based on their learning style
- Facilitated group discussions to guide students through a general thinking process behind answering a question