JEFFREY WANG

781-827-1582 | wang.jef@northeastern.edu | linkedin.com/in/jeffrey-wang-3381b2187/ | github.com/jeff-d-wang
Boston, MA | **Availability: May-December 2023**

Education

Northeastern University, Boston, MA Expected May 2025

BA Computer Science + Minor Biology @ Khoury College of Computer Sciences, 3.5/4.0 GPA *Sep 2021 – Present*

- **Coursework:** Object-Oriented Design, Machine Learning/Data Mining I, Computer Systems, Discrete Structures, Fundamentals of CS (I/II), Genetics and Molecular Biology, Human Genome Editing, General Biology (I/II)
- **Skills:** Python, Java, Git, HTML/CSS, Linux, Tensorflow, Racket, Flask, React.js, Tailwind, C/C++/C+, R, Assembly

Experience

Discovery Computational Biology Co-op Sep 2022 – May 2023

Verve Therapeutics *Boston, MA*

- Developed CRISPR gRNA efficiency model pipelines to analyze and improve on with **Python, R, Jupyter Notebook, AWS cloud computing.** Reading, collecting, and transforming data from papers to stress-test and validate models.
- Implemented a function to add flanking sequences to short target sites with **BLAST, Entrez, Biomart, & Ensembl**.
- Frequently collaborated with coworkers to create ideas and express findings to bridge gaps in our understanding.

Software Engineer Sep 2022 – May 2023

NURover *Boston, MA*

- Develop software to process and plot data from a bio-luminescence sensor and relay it to UI display via server with **Python, Flask, ROS, Tailswift CSS, and Typescript React.** Brainstorming and testing methods using image processing to crop the resulting color from protein test strips with **Python, Numpy, CV2, and MATLAB.**
- Perform **pull request reviews** of other members' code pushes with **Gitlab** and troubleshoot merge conflicts.

Teaching Assistant for Discrete Structures and Fundamentals of CS II Sep 2022 – May 2023

Khoury College of Computer Sciences *Boston, MA*

- Host office hours to debug and discuss code design, lead labs, and review/grade students' code.
- Communicate with coworkers on discussing and establishing a rubric to promote consistent grading.

Undergraduate Research Assistant Sep 2021 – May 2022

Professor Pedja @ Northeastern University *Boston, MA*

- Help members with cleaning and processing datasets with **Python, Jupyter Notebook, and Excel.**

Network Theory Researcher Sep 2019 – May 2021

Prof Hassibi @ Caltech *Pasadena, CA*

- Study algorithms and theory behind **fundamental concepts in network theory** under the Hassibi Group.
- Collect **crowdsourced data via triangle queries** on strawberry breed classification.
- Write an **optimized vector program** and testing it against **clustering algorithms** for performance using **MATLAB.**

Projects

Precision Medicine | *Python, Pandas, Numpy, MatplotLib, Sci-Kit Learn, Seaborn* June 2020 – Aug 2021

- Reported on the effects of data manipulation on a model's performance and its potential for **precision medicine.**
- Plotted IC50 values for each drug to assign sensitive and resistant labels for cancer types using the **CCLE dataset.**
- Processed 56202 samples to form a "filtered" RPKM dataset of those with a higher variance to cut training time. Two additional datasets were made with a tumor-type feature and imputed data with **KNeighborsClassifier.**
- Used a **Random Forest Classifier** and perform **cross-validation** with 30 bins. Drew **heatmaps** for visualization, **chi-square** to test significance, and input identified genes into **DAVID for enrichment analysis.**

2021 Infinite Recharge Robot | *Java, WPILib* Sep 2019 – June 2021

- **Lead and developed the programming** for Titanium Robotics's 2020-2021 FRC Challenge robot with teammates.
- Implemented Limelight to detect targets using image processing techniques. Coded the drivetrain and arm mechanism to auto-adjust for accurate goals with a **gyroscope, PID controllers, and inverse kinematics.**

Additional Information

Awards: USACO Silver, President's Volunteer Service Award Gold, Best Environmental Hack @ AngelHacks 2019
Interests: Calisthenics, Waterpolo, Reading, Video Games & eSports, Food Science, Cooking
Languages: English (Native), Chinese (Work Proficiency), Spanish (Elementary)