Gloria Liu

Marlboro, NJ　　gl492@rutgers.edu　　(732) 804-6531　　U.S. Citizen

EDUCATION

RUTGERS NEW BRUNSWICK
Presidential Scholar
GPA 3.7 | Expected BS 2024
Mathematics + Computer Science

SKILLS

- Python • Java • R • SQL •
- Mathematica • Autodesk Fusion 360
- Figma

COURSEWORK

UNDERGRADUATE
Intro. to CS
Data Structures
Linear Algebra
Honors Calculus 3
Honors Calculus 4
Honors Intro Math Reasoning
Linear Optimization
Math Theory of Probability

STUDENT LIFE

Diversity Peer Educator
- September 2020 – Present
- Writing newsletters and facilitating discussions & workshops on diversity, equity, & inclusion topics

Rutgers Marching Band
- September 2020 - Present
- Piccolo player for Rutgers Marching Scarlet Knights

HC Ally Mentor
- September 2021 – Present
- Mentor for freshmen at Rutgers Honors College

Walmart Associate
- October 2019 – March 2020
- Online grocery pickup associate – supported customers who placed online orders

EXPERIENCE

RESEARCH ASSISTANT | Statistics & Machine Learning
June 2021 – Present
- Under the guidance of Professor Yihong Zhao, I test various pattern discovery approaches on addiction and healthcare related datasets, ranging from brain MRI data to substance use survey data
- Tested longitudinal principal analysis methods and machine learning methods
- Responsibilities: Design and run simulations, create visualization functions, data cleaning, and parameter tuning for machine learning models in R and Python
- Summer research funded by Aresty Summer Science Program

GRAPES Tool | Game Design & Advocacy
January 2021 – December 2021
- Collaboratively created GRAPES (Game to Raise Awareness for Patient/Provider/Public Education of SCD), an interactive trivia game about Sickle Cell Disease, with medical and graduate school students
- Won 1st place in the NHLBI Hope for Sickle Cell Disease Challenge
- After playing game, patients & providers had significant improvement in SCD knowledge
- Paper on the efficacy of the game on raising Sickle Cell Disease awareness published in peer-reviewed *Blood* journal

SEEFOOD 2.0 | Deep Learning
November 2020
- Inspired by HBO's *Silicon Valley*, designed a CNN to classify hotdogs vs carrots vs bananas for 2020 Creatica Hackathon

PYGAME PLATFORMER | Game Design
July 2020
- Implemented PyGame physics engine leveraging open source

PUBLICATIONS

Ouyang, A., Gadiraju, M., Gadiraju, V., Power, L., Gadiraju, V., Liu, G., Guilliams, K. P., Binkley, M. M., Badawy, S. M., & Fields, M. E. (2021). Grapes: Trivia game increases Sickle Cell Disease knowledge in patients and providers and mitigates health biases. *Blood*, *138*(1), 917–917. https://doi.org/10.1182/blood-2021-144635

PERSONAL LINKS

- linkedin.com/in/gliuu
- github.com/gliuu
- gliuu.github.io