amirihayes.github.io/YearOfTheSenior www.linkedin.com/in/amirihayes 70 East Central Ave. Maywood, NJ 07607

OBJECTIVE: Gloucester County, NJ

I am a high school student majoring in Physics & Computer science at Rowan College of South Jersey. My ultimate goal is to learn to problem solve in many different contexts and capacities. I love challenges and connecting with people. Three of my hobbies are math, skateboarding, and biking in New York City. My website is linked above for additional info.

#### **EDUCATION:**

2021-2023

ROWAN COLLEGE OF SOUTH JERSEY - GLOUCESTER (HSOP STUDENT)

GPA: 3.94

RCSJ President's List

PTK Honor Society Member

- Majors: Physics and Computer Science
- Relevant Courses: Calculus I III, Statistics, Data Structures & Algorithms, Physics II
- Awards: 17th place NJUMC math competition, Silver Presidential Service Award for Volunteering, MIT Undergraduate Research Technology Conference Publication
- Involvements: RCSJ Math Club, RCSJ Black Student Union, RCSJ Literary Magazine

### **EXPERIENCE:**

2022-present

## NJIT CENTER FOR APPLIED MATH & STATISTICS

Newark, NJ

## Research Assistant at New Jersey Institute of Technology

- Assist Chair of NJIT Math Department on ocean acoustics research using Computer Science
- Engineer features & visualize data in MATLAB to characterize the seabed by classifying sediments
- Edit decision trees and educate myself on machine learning & non-linear regression techniques
- Read relevant papers on acoustic field data and ocean characterization weekly

Summer 2022

# New Jersey Governor's school of Engineering & Technology Student Researcher at Rutgers University - New Brunswick

New Brunswick, NJ

- Completed a four-week research project proving the efficiency of morphing airfoils
- Employed MATLAB to calculate fuel efficiency and lift/drag values for aircraft
- Worked in a team to simulate airfoils using COMSOL and ANSYS and build a prototype
- Presented research and demonstrated proof-of-concept airfoil prototype at Rutgers, New Brunswick symposium and MIT Undergraduate Research Technology Conference

2020-2022

## KUMON MATH AND READING CENTER OF MAYWOOD, NJ

### Assistant Instructor & Math Tutor

- Taught math and language arts from kindergarten to grade 10 level
- Set up online Zooms for students unable to come to the center in-person
- Helped over 50 kids achieve their potential and improve in school

2020-present

## HACKENSACK UNIVERSITY MEDICAL CENTER FITNESS AND WELLNESS Swim Instructor & Lifeguard

Maywood, NJ

- Completed 2, 50-hour Red Cross courses in lifeguarding and swim-instructing
- Teach 3 to 8 year olds to swim and follow best practices in aquatic environments
- Maximized deck safety by rearranging signage and prioritizing communication

## **SKILLS:**

- Languages: C++, Python, JavaScript, Java, Latex, MATLAB, HTML & CSS
- Technologies: Adobe Illustrator, Excel, Word, Blender, Onshape, Overleaf
- Personal: Communication, Empathy, Teamwork, Conflict Resolution, Problem-Solving