

Alejandro Rodriguez-Monge

Livingston, NJ 07039 | a12monge50@gmail.com | (973) 885-2557 | <https://www.linkedin.com/in/ale-j-rm/>

EDUCATION

Johns Hopkins University, Baltimore, Maryland

Expected: May 2023

B.S. Computer Science + Computer Engineering

Cumulative GPA: 3.56/4.00

Relevant Coursework:

- **Spring 2021:** User Interfaces + Mobile Applications, Databases, Discrete Mathematics
- **Current:** Data Structures, C/C++ Programming, Mastering Electronics
- **Previous:** Gateway Computing: Java, Digital Systems Fundamentals, Computational Modeling MATLAB

SKILLS & INTERESTS

Programming Languages: Java, C, C++, HTML*, CSS*, JavaScript*

Language: English (fluent), Spanish (fluent), French (basic)

Personal Interests: Volunteering, Cooking, Hiking, Bouldering

EXPERIENCE & PROJECTS

Skip-Bo Card Game: C++

December 2020

- Group-based Final project to implement card game
- **File I/O** to save and parse game files
- **Object Oriented** techniques: **polymorphism, abstract classes, overriding + overloading**

Image Editor: C

October 2020

- As a midterm project, developing program to edit given image file
- **File I/O** to import image into terminal
- Made functions/algorithms to crop, binarize, convert to grayscale, transpose, and seam carve image
- Techniques: **dynamic allocation, algorithmic design, pointer arithmetic, and git**

Trigram Language Model: C++

October 2020

- Used C++ classes and containers to build a trigram-based language model
- Created operations to organize and process language model based on user input and word frequency
- Techniques: **Command line argument and input validation, file I/O operator overloading, and git**

Regex Matcher: C

September 2020

- Drafted and implemented algorithm to find regular expressions (regex) in external files
- Techniques: **file I/O, dynamic allocation, recursion, pointer arithmetic, and git**

To-do List: Java/JavaFX

August 2020

- As a personal project, developed a to-do list program for desktop
- Used common various JavaFX libraries and CSS to configure GUI of program
- Will continue to work on graphical interface design and add more functionality for end users

LEADERSHIP, AWARDS & AFFILIATIONS

Society of Hispanic Professional Engineers (SHPE)

- As treasurer, managed and developed a comprehensive budget for the 2020-2021 academic year
- Organized fundraiser events to collect funds for future programs and events

YMCA

- Emergency Food Bank:
 - Helped coordinate and deliver weekly food distributions to 20+ local families affected by COVID and in need
- Swim Instructor + Coach
 - Created individualized curriculums to improve technique, safety, and confidence
 - Worked with hundreds of children and adults of varying ages and abilities in group and private setting
 - Taught and led a free water safety program for low-income Spanish speaking children and adults
- Piranhas:
 - Helped train and organize children and adults with varying disabilities to prepare for NJ Special Olympic Swimming

Other Affiliations:

- HITEC, HSF, NJSEEDs, & Hodson-Gilliam Scholar
- Gertrude-Butts, Maryland Space Grant, NJ Elks Lodge scholarship awardee