

# Welcome to your 310 Portfolio

A progression of learning for CSC/DSP 310: Programming for Data Science at University of Rhode Island.

## About Me

Hello, my name is Brianna MacDonald and I am a Senior at URI with a double major in Computer Engineering and Chinese with a double minor in Cyber Security and Data Science. I've been studying Chinese for about 4 years and I recently had the opportunity to go to Shanghai and Beijing last Winter right before COVID-19.

## Data Science, to me

Data Science is the intersection between computer science, statistics, and domain knowledge. Data Science has many different uses, such as in medical sciences or in machine learning.

## Compute the Grade for CSC/DSP 310

- To run with input from user, please run **main()** in a cell.
- To run by entering values into function, please run **compute\_grade()** with desired values.

```
def main():
    # Initializing Variables
    num_level1 = int(input("Enter number of total level 1 achievements earned: "))
    num_level2 = int(input("Enter number of total level 2 achievements earned: "))
    num_level3 = int(input("Enter number of total level 3 achievements earned: "))

    compute_grade(num_level1, num_level2, num_level3)
```

```
def compute_grade(num_level1, num_level2, num_level3):
    """
    Computes a grade for CSC/DSP 310 from numbers of achievements earned at each level
    :param num_level1: int, number of level 1 achievements earned
    :param num_level2: int, number of level 2 achievements earned
    :param num_level3: int, number of level 3 achievements earned
    :return: letter_grade: string, letter grade with possible modifier (+/-)
    """
    # Initializing Variables
    total_grade = num_level1 + num_level2 + num_level3
    letter_grade = str

    # Error Handling
    if total_grade > 45:
        print("Invalid total. Please re-enter values.")
    # Definitions of Grades
    else:
        if total_grade == 45:
            letter_grade = 'A'
        elif 40 <= total_grade < 45:
            letter_grade = 'A-'
        elif 35 <= total_grade < 40:
            letter_grade = 'B+'
        elif 30 <= total_grade < 35:
            letter_grade = 'B'
        elif 25 <= total_grade < 30:
            letter_grade = 'B-'
        elif 20 <= total_grade < 25:
            letter_grade = 'C+'
        elif 15 <= total_grade < 20:
            letter_grade = 'C'
        elif 10 <= total_grade < 15:
            letter_grade = 'C-'
        elif 5 <= total_grade < 10:
            letter_grade = 'D+'
        elif 0 <= total_grade < 5:
            letter_grade = 'D'
        else:
            print("Your grade does not translate to a letter grade.")
    print(f'Your grade is {letter_grade}.')
```

The example below will give a grade of a C.

```
# Example 1  
compute_grade(9, 6, 2)
```

Your grade is C.

The example below will give a grade of a B.

```
# Example 2  
compute_grade(15, 16, 2)
```

Your grade is B.

The example below will give a grade of an A-.

```
# Example 3  
compute_grade(15, 14, 12)
```

Your grade is A-.