

# Assignment 02: Writing Python Functions and Numpy Vectorization

CSci 574: Machine Learning

## Description

### Introduction

In this assignment you will get some tasks to help familiarize you with programming Python and creating vectorized NumPy functions.

Even if you've used Python before, these exercises will help familiarize you with functions you will be using in this course, and a few basic concepts.

### Instructions:

- You need to use the class development environment and make sure that you are pushing your assignments to your GitHub classroom and they are successfully passing the autograder.
- Avoid using for-loops and while loops, unless you are explicitly told to do so.
- Do not modify the `### TESTED FUNCTION [function name]` cells. These cells call unit tests on the functions you are asked to write for these assignments.
- All functions you need to write should be placed into the `src/assignment_tasks.py` file. Functions that are tested and graded are imported from there into this notebook.
- After coding your function, run the `### TESTED FUNCTION` cell to determine if it is passing the assignment unit tests and that your result is correct.

## Objectives

**After this assignment you will:** - Be able to use iPython Notebooks - Be familiar with using our GitHub classroom workflow and the GitHub autograder for your assignments. - Understand the concept of “broadcasting” - Understand and be able to vectorize code. - Have practiced writing Python and vectorized NumPy functions and operations.

Let's get started!

## Overview and Setup

### Assignment Tasks

### Assignment Submission

### Additional Information