CSci 4270 and 6270
Computational Vision,
Spring Semester, 2021
Lecture 03 Exercise
Due: Saturday, February 6, 2021 at 5 pm EST

Preliminary Note

Having the due date on a Saturday is a little awkward, but I wanted to give extra time to students who can't participate live and who may be in a different time zone. The exercises are intended to take an hour or less. I will generate a poll after the first three weeks of the semester to see how you are doingn with the lecture exercises.

0.1 Problem

Simlar to Problem 2 from Lecture 3, the supplied code reads in a list of points in two dimensions and returns it as an array. Complete the code by finding and printing the values of a, b and c for the orthogonal least squares best fitting line. Print these values each on a separate line, accurate to 3 decimal places. As before there is a sign ambiguity and resolve this my making sure that a is positive. (For the sake of time, don't worry about the possibilty that a is 0). Please, no for loops.

The outputs from my code on the two example files are

```
% python prob_sol.py pts_v1.txt
0.838
-0.546
-3.591
```

and

```
% python prob_sol.py pts_v2.txt
0.105
0.994
-0.033
```