# Content

The homework submitted should contain **four** files.

NWA.py

NWA63\_anchor.py

Readme File

Alignments & Scores File

The homework requested 5 files, but one of my files calls the NWA63 or NWA63\_anchor function depending on the input command. Please contact me if this is not acceptable, or if any files are missing/unreadable ([sched088@umn.edu](mailto:sched088@umn.edu))

# Running the Files

Below are the inputs for running the two .py programs. I can provide a file which is hard-coded with running parameters if the inputs are not working correctly. The Alignments & Score file contains the associated output data.

### NWA.py

This file runs only the non-anchored Needleman-Wunsch algorithm.

This program will take two sets of inputs:

1. NWA.py Human\_HOX.fa Fly\_HOX.fa
2. NWA.py Human\_PAX.fa Fly\_PAX.fa

### NWA62\_anchor.py

This file runs either the anchored or the non-anchored Needleman-Wunsch algorithm depending on the inputs. The first two inputs below should run the non-anchored algorithm.

This program will take four sets of inputs:

Non-anchored:

1. NWA.py Human\_HOX.fa Fly\_HOX.fa
2. NWA.py Human\_PAX.fa Fly\_PAX.fa

Anchored

1. NWA.py Human\_HOX.fa Fly\_HOX.fa Matches\_HOX.txt
2. NWA.py Human\_PAX.fa Fly\_PAX.fa Matches\_PAX.txt