**User Manual for summarise\_picard\_metrics.py Program**

**Khalid Adam Yusuf (s411309)**

**04/11/2023**

To run this program, the user needs to do the following:

1. This is a python program, as such you should have python installed into your computer.
2. The program is designed to be implemented/run in plain python environment using the command prompt.
3. You are advised to create and activate a new python environment to load the required python modules/libraries. This is so as not to pollute your python environment with modules that you may not need afterwards.
4. You should always select this environment each time you want to the program.
5. Make sure all the required python modules/libraries are imported/loaded before running the program.
6. The script, input folder and output folder should be in the same folder.
7. The program is design to receive three subfolders containing text files from the input folder, so make sure the required subfolders contain the appropriate text files.
8. The program utilizes summary text files that it generates in the output folder to make plots. It is important that the appropriate path is provided.
9. The program is design to take input and output folder names after the name of the program in order to run it. These are required arguments to run the program. Other optional arguments can be provided in addition the required arguments depending on what you intend to execute from the program.
10. Examples of how the program can be run include:
11. python summarise\_picard\_metrics.py Input\_folder Output\_folder -c – will print the number of text files in each subfolder of the input folder.
12. python summarise\_picard\_metrics.py Input\_folder Output\_folder -hyb – will print all output related to hybridization metrics.
13. python summarise\_picard\_metrics.py Input\_folder Output\_folder -ins – will generate all output related to insert sizes metrics.
14. python summarise\_picard\_metrics.py Input\_folder Output\_folder -dup – will generate all output related to duplicate metrics.
15. python summarise\_picard\_metrics.py Input\_folder Output\_folder -a – will print all the tasks of the program.
16. Summary text files, plots and histograms are saved to the output folder specified by the user in the command prompt.