# Computer Vision 600100 Counting Starfish Student ID: XXXXXX Date: **August 3, 2020** Deadline: Monday 3rd August 2020 by 2pm

Report (minus front pages & references) must be within 6 page maximum. Strict page limits will be enforced and extra pages ignored (and no marks given for any work on them). Please keep to the given section headings and format.

< Remove all comments, and guidance notes including any annotations before submission, including this. >

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# Image Processing Pipeline

Give details on each stage of your proposed pipeline.

Explain what is the purpose of each stage in the image processing pipeline.

Explain what algorithm / function is used in each step. Why was it used? What parameters were used and why? What alternatives did you consider?

In tackling the task to create an image processing pipeline I decided to create a linear pipeline. The pipeline I create starts with loading in the image and viewing the data for the image. A histogram is then made of the image to see the values in the 255 greyscale of the image (see figure 1).

# Results

Give a figure showing the result of your image processing pipeline on the default starfish.jpg image.

Does your image processing pipeline perform well on the noise and colour variations of Starfish? (show this)

Show the effect of your image processing pipeline on an alternative image (E.g Starfish\_5.jpg) and perhaps if your code works on any other images.

# Discussion

Discuss the results presented in the previous section. What works, and what doesn’t work; including why it may or may not work.

How can the design of your image processing pipeline and code be improved? Are there any alternative functions / algorithms / approaches which may have been more suitable in hindsight. Is there evidence to support this?

Consider each stage of the image processing pipeline. Consider variations in noise, colourmaps, and image types, including the more challenging images with occlusion and clutter.

# References

If you have any references, put them in here in University of Hull Harvard style. If you do not have any references, remove this section.