Where's my Sheep?

Report Name	Project Outline
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1 Project description

Locate and count sheep in ariael images from rededge camera, with rgb, infrared, rededge layers 10cm per pixel approximatly, so each sheep only 20-30 pixels of an image. Can we get a method to work on white sheep, if we can does it also work on brown sheep? can we get it to work on other animals? What layers are most useful when identifying the sheep, could we combine layers.

QGIS to view images, Python, OpenCV to process images Tensorflow to train model. Jira scumban github repository, wiki for meeting notes and blog/log

2 Proposed tasks

Attempt some basic computer vision methods such as thresholding or template matching to identify sheep. Look into using a machine learning approach by training a model and giving it an image to try. similar to face or object detection, find papers related to this that could be adapted to less detailed images. investigate spectral signiture

3 Project deliverables

Project Outline, this document Project Report Python OpenCV script with thresholding attempt, for white sheep. Python OpenCv script with templating attempt. test scripts half way demo Tensorflow model with scripts to apply it to image. Final Demo

Annotated Bibliography

[1] W. Press *et al.*, *Numerical recipes in C*. Cambridge University Press Cambridge, 1992, pp. 349–361, 0123456789.

This is my annotation. I can add in comments that are in **bold** and *italics and then other content*.

[2] M. Neal, J. Feyereisl, R. Rascunà, and X. Wang, "Don't touch me, I'm fine: Robot autonomy using an artificial innate immune system," in *Proceedings of the 5th International Conference on Artificial Immune Systems*. Springer, 2006, pp. 349–361.

This paper...

[3] H. M. Dee and D. C. Hogg, "Navigational strategies in behaviour modelling," *Artificial Intelligence*, vol. 173(2), pp. 329–342, 2009.

This is my annotation. I should add in a description here.

[4] Various, "Fail blog," http://www.failblog.org/, Aug. 2011, accessed August 2011.

This is my annotation. I should add in a description here. A longer piece of text.

[5] S. Duckworth, "A picture of a kitten at Hellifield Peel," http://www.geograph.org.uk/photo/640959, 2007, copyright Sylvia Duckworth and licensed for reuse under a Creative Commons Attribution-Share Alike 2.0 Generic Licence. Accessed August 2011.

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