Sugar Cane Grading from photo using machine learning
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I have read this summary of functionality and approve its content.

The project present status

Earlier this semester, we have written some code to create a simple CNN with the dataset we had obtained by that time on each candidate framework. The candidate frameworks are Tensorflow, Caffe, Torch. In October 27^{th} 2016, we got the authorization to access to the KMUTT Innosoft high performance computing service. This server has a NVIDIA Tesla K10 card, which has an adequate performance for our experiment. In November 19^{th} 2016, we received a full data set from Mitrphol. It consists of 2281 ground level images of types png and jpg. They are segregated by the sugarcane age into three categories: Early, Mid and Late. Each category contains sample sugarcane images of different qualities: poor, medium and good. Each image is labeled according to the quality of the field which it shows. By the end of November, we had made a decision on using Tensorflow for our project. We have successfully installed the framework with gpu enable on the gpu machine of the server. We can now start to extend the code we wrote earlier to process the real dataset on the gpu.

Features and deliverables

The features and deliverables we commit to complete before the submission of the report next term will be what we consider useful for Mitrphol if they want to continue working with our results. They are as follows.

- Trained models
- Detailed analysis of results showing effects of different parameters on the accuracy and training time
- Conclusions regarding the best model and model parameters
- Detailed instructions for installing a model on a different computer
- Detailed instructions for using the model
- Recommendations for future work on this question