Literature review proposal

Student ID: 1971068 Name: Xiankun Yan

1. The topic

The topic that I choose is the classification method in the images of the early breast cancer. This area belongs to the image analysis. Nowadays, the breast cancer contributes to be a significate public health problem in the world and the reasons that cause the breast cancer is not clearly until now, so early detection and prevention play an important role in the diagnosis and treatment of breast cancer and are the key to improving the cure rate. With the development of technology of machine learning, more and more effective approaches based on machine learning had been proposed to classify the early breast cancer.

2.The strategy used to find relevant papers

Some methods are shown in the below:

1) Using Google scholar website: Google scholar is one useful tool and can provide lots of relevant papers.
2) Using ScienceDirect website: ScienceDirect contains most of professional science articles and papers.
3) Using Web of Science website: Web of Science also is a professional website, which can help me to find the relevant resources.
4) Using IEEE website: This website is also a useful academic website, lots of papers about computer science could be find in this website.

Besides, the key words we can use are “the classification of early breast cancer” and “machine learning” or “pattern recognition”.

3.Early funding

As far as I concerned, for the early breast cancer, the mammography is one of the reliable methods for early detection of breast carcinomas and the presence of microcalcification clusters (MCCs) is an important sign for the detection and of early breast carcinoma. Therefore, how to improve the accuracy of the classification of it plays an important role [1]. In order to improve it, the suitable features of microcalcifications and mould should be selected and trained respectively. Therefore, the key question is I have to how to select the features and build a good mould.

4.Reference

[1] Cheng, Heng-Da, et al. "Computer-aided detection and classification of microcalcifications in mammograms: a survey." *Pattern recognition* 36.12 (2003): 2967-2991.