The title of the project is “A speech emotion recognition classifier to aid performance review in learning environments’’.

For this project, I aim to develop and assess an approach to aiding learning environment performance review that, if successful, could provide highly insightful remarks unobtainable through existing tools and methodologies.

The approach that I will be taking primarily involves the creation of a speech emotion recognition classifier using deep learning. The classifier should, given an audio input of speech, be able to successfully classify a variety of the conveyed emotions.

The classifier will be incorporated into a graphical program that can take in either real time or pre-recorded audio input and output the classifications along with an analysis on the effectiveness of the learning.

Once the classifier has been trained and tested on assorted predefined test datasets, the next steps are to perform tests of the classifier in actual learning environments and then to analyse the collected data. Through the analysis of the collected data, I aim to draw conclusions pertaining to effective learning states that can then be incorporated back into the program, forming the basis of the insights provided to the user upon analysis.

I expect that, through this approach, I will uncover how feasible the application of such a technology in a learning environment would be. I hope to additionally find and draw interesting conclusions from the usage and testing of the technology and to provide some insight into the relations between speech emotion and effective learning state.

It can be observed that technology has yet to make a significant contribution towards aiding performance review in learning environments and indeed learning environments in general. This can largely be attributed to the lack of effectiveness of the existing tools, whereby much of the information obtained is neither insightful nor particularly meaningful.

With this in mind, I would like to create a tool that can provide unique and hopefully beneficial insights to educators, thus demonstrating one such way that technology could be adopted into learning environments.

Besides the usage and applications of the tool itself, I aim to uncover and document any interesting findings obtained whilst developing and testing the tool. One area of particular interest is on the potential relationships between speech emotion and effective learning state.

The primary benefits of this project are to assist in performance review and assessment via useful feedback generated by the tool and to add some new insight to the existing body of knowledge surrounding the subject area. A secondary benefit of this project would be to garner attention towards the application of technology in learning environments.