|  |
| --- |
| **CMP304 (50%)**  **Project Report**  **Human Emotion Recognition** |
| Instructions:  - This is a template that you will fill to complete your assignment report.  - Please read the assessment brief document before attempting this.  - The gray text is meant as guidelines. You are to replace it with your own.  - Delete the instructions part and any gray text before submission.  - After you complete this report, save it as pdf, and submit it along with the compressed folder of your application. |
| **by: Matthew Wallace** |

|  |
| --- |
| **1. Introduction (5%)** |
| Relevant overview properly setting the context of the project.  The project is based on the [face\_recognition](https://github.com/ageitgey/face_recognition) python library, one of its python example applications called ‘find\_facial\_features\_in\_picture’ (with my changes to save the results in .csv files) and my own C++ application which uses extracted facial features, saved into .csv files, to learn an emotion and to recognize an emotion from a picture. |
| **2. Methodology (15%)** |
| Description of the steps followed and methods used including a complete explanation and rationale for the techniques and features chosen. You should also acknowledge the tools you used.  face\_recognition python library allows for extracting facial features from a picture. It basically just gives a position (relevant to the picture) of the chin, left eyebrow, right eyebrow, nose bridge, nose tip left eye, right eye, top lip, bottom lip. These position are saved in a .csv file that looks like this:    And this is how the facial features extraction of the python application look like in macOS terminal (face\_recognition library works only on Linux and macOS):    Terminal resluts    Extracted facial features |
| **3. Results (10%)** |
| Comment on the performance of your application, including test cases. Tabulate and discuss your results. A quantitative measure of performance must be presented. |
| **3. Conclusions (10%)** |
| Full analysis and summary of the project. |
| **3. References (5%)** |
| A number of references properly cited in Cite Them Right Harvard style. |