Project Review Proforma – Review number: 4 Date: 20/3/2024

<table>
<tr>
<td>Summarised Planned State of Project:
Thesis Draft:
1. Complete methodology for thesis draft.

Perform experiments on ANN to determine the hardware limitations of STM32MP157F-DK2:
1. Test various numbers of inputs and determine if the model can be compiled on the hardware.
2. Record the accuracy, compatibility and size of the model.

Research CNN model Architecture:
1. Research and write a 1D-CNN architecture and determine its compatibility with the hardware.</td>
<td>Actual Progress Since Last Review
Thesis Draft:
1. The thesis draft methodology was done according to plan.

Perform experiments on ANN to determine the hardware limitations of STM32MP157F-DK2:
1. Highest accuracy model was determined.
2. Hardware limitations were determined.
3. The overfitting issue was noted and tackled with a new model architecture.
4. The task was performed according to plan.

Research CNN model Architecture:
1. A 1D-CNN script was developed and trained.
2. The model developed is not compatible with the hardware due to hardware constraints.
3. Fine-tuning of the model and experiments needs to be carried out.
4. The task is still ongoing.</td>
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<td colspan="2">Next Steps
1. Continue writing the thesis draft.
2. Perform experiments to deploy 1D-CNN into STM32MP157F-DK2.
3. Fine-tune the model with various hyperparameters to mitigate overfitting.

Supervisor Feedback
The supervisor advised continuing the thesis draft while also conducting experiments aimed at deploying the 1D-CNN model onto the hardware. Furthermore, it was suggested to refine the model by adjusting various hyperparameters to address potential overfitting issues.</td>
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