Weekly Report for BSc Project

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| Student RUG ID: | 2117538 |
| Student IIT ID: | 20210488 |
| Student name | KD NADUN SHAMIKA SENARATHNE |
| Course | BSc Artificial Intelligence and Data Science |
| Module | CM4605 - Individual Research |
| Project Topic |  |

To be submitted to the supervisor weekly, with the latest page on top. Upload to the drop box on the relevant module pages on Campus Moodle at the final submission time

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| Week commencing on  dd / mmm / yyyy | 13/06/2024 |
| Meeting with the supervisor | Yes |
| Initial discussion about the project idea and presenting the idea |
| Description of progress this week | How to scope down the project |
| Plan for next week | Scoping down the project and make a simple component diagram |
| Date of report | 13/06/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 20/06/2024 |
| Meeting with the supervisor | Yes |
| Discussing the narrowed down scope |
| Description of progress this week | Adjusting the scope with supervisor comments |
| Plan for next week | Scoping down the project and make a simple flow diagram |
| Date of report | 20/06/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 27/06/2024 |
| Meeting with the supervisor | Yes |
| Discussing the narrowed down scope |
| Description of progress this week | Adjusting the scope with supervisor comments |
| Plan for next week | Scoping down the project |
| Date of report | 27/06/2024 |
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| Week commencing on  dd / mmm / yyyy | 04/07/2024 |
| Meeting with the supervisor | Yes |
| Discussing the narrowed down scope |
| Description of progress this week | Adjusting the scope with supervisor comments and also creating a draft scope document |
| Plan for next week | Scope document |
| Date of report | 04/07/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 11/07/2024 |
| Meeting with the supervisor | Yes |
| Discussing the scope document |
| Description of progress this week | Adding the scope of the components and the features for the face model |
| Plan for next week | Updating the scope document with the requirement |
| Date of report | 11/07/2024 |
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| Week commencing on  dd / mmm / yyyy | 18/07/2024 |
| Meeting with the supervisor | Yes |
| Discussing the scope document |
| Description of progress this week | Adding the scope of the components and the features for the novelty part hybrid spatio-temporal model |
| Plan for next week | Updating the scope document with the requirement |
| Date of report | 18/07/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 25/07/2024 |
| Meeting with the supervisor | Yes |
| Discussing the scope document |
| Description of progress this week | Making the 2 research questions for the 2 components |
| Plan for next week | Updating the scope document with the requirement |
| Date of report | 25/07/2024 |
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| Week commencing on  dd / mmm / yyyy | 08/08/2024 |
| Meeting with the supervisor | Yes |
| Discussing the scope document |
| Description of progress this week | The aim and objectives for the 2 research questions and Creating a project timeline |
| Plan for next week | Updating the scope document with the requirement |
| Date of report | 08/08/2024 |
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| Week commencing on  dd / mmm / yyyy | 22/08/2024 |
| Meeting with the supervisor | Yes |
| Discussing the scope document |
| Description of progress this week | Evaluating matrices for the gait model and stat component |
| Plan for next week | Updating the scope document with the requirement |
| Date of report | 22/08/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 29/08/2024 |
| Meeting with the supervisor | Yes |
| Discussing the face model implementation |
| Description of progress this week | Started implantation spatial component of the hybrid model |
| Plan for next week | Trying out different model architectures to make the spatial model |
| Date of report | 29/08/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 05/09/2024 |
| Meeting with the supervisor | Yes |
| Discussing the implementation of the spatial model and its limitations |
| Description of progress this week | Implantation of spatial component trying out from normal deep learning to vision transformers |
| Plan for next week | Trying out different model architectures to make the spatial model with the suggestions of the supervisor |
| Date of report | 05/09/2024 |
| Student Photo Signature |  |

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| Week commencing on  dd / mmm / yyyy | 12/09/2024 |
| Meeting with the supervisor | Yes |
| Discussing the implementation of the spatial model and its limitations |
| Description of progress this week | Chose restnet as the main architecture |
| Plan for next week | Trying out different model setups with ResNet50 model |
| Date of report | 12/09/2024 |
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| Week commencing on  dd / mmm / yyyy | 19/09/2024 |
| Meeting with the supervisor | Yes |
| Discussing the implementation of the spatial model and its limitations |
| Description of progress this week | Adding a novelty part where trying to improve the deep learning architectures with machine learning classifiers |
| Plan for next week | Trying out different machine learning classifiers to classify the features extracted from the ResNet model |
| Date of report | 19/09/2024 |
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| Week commencing on  dd / mmm / yyyy | 26/09/2024 |
| Meeting with the supervisor | Yes |
| Discussing the implementation of the spatial model and its limitations  Finishing up on the spatial model implementation |
| Description of progress this week | Adding a novelty part where trying to improve the deep learning architectures with machine learning classifiers  Finishing up on the spatial model implementation while fine tunning |
| Plan for next week | Trying out different machine learning classifiers to classify the features extracted from the ResNet model  Start the implementation of the temporal model |
| Date of report | 26/09/2024 |
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| Week commencing on  dd / mmm / yyyy | 25/09/2024 |
| Meeting with the supervisor | Yes |
| Finishing up on the spatial model implementation |
| Description of progress this week | Finishing up on the spatial model implementation while fine tunning |
| Plan for next week | Start the implementation of the temporal model |
| Date of report | 25/09/2024 |
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| Week commencing on  dd / mmm / yyyy | 02/10/2024 |
| Meeting with the supervisor | Yes |
| Temporal model implementation |
| Description of progress this week | Working on the temporal model implementation while fine tunning |
| Plan for next week | Finish 50% of the temporal model implementation |
| Date of report | 02/10/2024 |
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| Week commencing on  dd / mmm / yyyy | 07/10/2024 |
| Meeting with the supervisor | Yes |
| Temporal model implementation |
| Description of progress this week | Working on the temporal model implementation while fine tunning |
| Plan for next week | Start making the stat data to be able to query from a DB |
| Date of report | 07/10/2024 |
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| Week commencing on  dd / mmm / yyyy | 14/10/2024 |
| Meeting with the supervisor | Yes |
| Temporal model implementation parallelly with stat genaration |
| Description of progress this week | Setting up the DB |
| Plan for next week | Start making the stat data to be able to query from a DB and also reduce overfitting of the temporal model |
| Date of report | 14/10/2024 |
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| Week commencing on  dd / mmm / yyyy | 21/10/2024 |
| Meeting with the supervisor | Yes |
| Drafting the literature review document and the stat generation system with open ai 4o api |
| Description of progress this week | Implementation of the stat generation system |
| Plan for next week | Finishing up on the LR draft and the full integration of the models |
| Date of report | 21/10/2024 |
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| Week commencing on  dd / mmm / yyyy | 28/10/2024 |
| Meeting with the supervisor | Yes |
| Getting the supervisor feedback on the LR |
| Description of progress this week | Documenting the LR and stat generation system implementation |
| Plan for next week | Finish up on the stat generation system with the openai api |
| Date of report | 28/10/2024 |
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| Week commencing on  dd / mmm / yyyy | 04/11/2024 |
| Meeting with the supervisor | Yes |
| Discussed to write and the structure the methodology |
| Description of progress this week | Implemented chat gpt 4o api for the stat generation system and submitted LR |
| Plan for next week | Start the methodology document |
| Date of report | 04/11/2024 |
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| Week commencing on  dd / mmm / yyyy | 11/11/2024 |
| Meeting with the supervisor | Yes |
| Got advice on the paper structure changes |
| Description of progress this week | Writing the methodology and the conference paper with the paper structure |
| Plan for next week | Writing according to the changed structure  Finish up on the methodology and the SPER document |
| Date of report | 11/11/2024 |
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| Week commencing on  dd / mmm / yyyy | 25/11/2024 |
| Meeting with the supervisor | Yes |
| Got advice on some structural changes to the conference paper  And how to do the dataset evaluation |
| Description of progress this week | Finished the methodology chapter and writing up the conference paper |
| Plan for next week | Do the novel dataset evaluation/validation through LLM evaluation |
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| Week commencing on  dd / mmm / yyyy | 02/12/2024 |
| Meeting with the supervisor | Yes |
| Do the validation of the novel dataset through a LLM |
| Description of progress this week | I’ve started validating the cricket player dataset using the CLIP model. The images are organized by player names, and the model compares image embeddings with textual labels (player names) to determine recognition accuracy.  Results are being saved in a CSV file, and I’m working on visualizations (e.g., confusion matrix, LLM evaluation graph) to showcase the findings. |
| Plan for next week | Do the novel dataset evaluation/validation through LLM evaluation |
| Date of report | 02/12/2024 |
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| Week commencing on  dd / mmm / yyyy | 09/12/2024 |
| Meeting with the supervisor | Yes |
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| Description of progress this week | Trying out different models to do the validation |
| Plan for next week | Do the novel dataset evaluation/validation through LLM evaluation |
| Date of report | 09/12/2024 |
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| Week commencing on  dd / mmm / yyyy | 16/12/2024 |
| Meeting with the supervisor | Yes |
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| Description of progress this week | Did the validation but encountered some problems regarding the classification of 2 players |
| Plan for next week | Try to fix these problems, and finish most of the conference paper |
| Date of report | 16/12/2024 |
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| Week commencing on  dd / mmm / yyyy | 06/01/2024 |
| Meeting with the supervisor | Yes |
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| Description of progress this week | Finalized the IJCNN conference paper writeup |
| Plan for next week | Get the supervisor feedback on the paper and submit it |
| Date of report | 06/01/2024 |
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| Week commencing on  dd / mmm / yyyy | 20/01/2024 |
| Meeting with the supervisor | Yes |
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| Description of progress this week | Submitted the paper and completed the dataset for the remaining 4 players for the stat generation component |
| Plan for next week | Insert this new data to the player DB and update it. And try another LLM for evaluation purposes. |
| Date of report | 20/01/2024 |
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