MCI Project Weekly Time Sheet

Team HA1 **Student ID** Manhong Chen a1904387 **Week starting:** 12-May

Day	Date	Time In	Time Out	Total hours	Task	How does it fit ito project plan?	Outcome/Next action
Monday	5/12	1:00 PM	2:00 PM	1.0	discuss and finish the agenda for this week	ensure the outcome from our group members and the issues we have met	complete agenda for week 9
Tuesday	5/13	12:00 PM	6:00 PM	6.0	try different parameters for the KNN-CF model to get different outcomes	try to find out the best performance of the KNN-CF model	identify that the performance is better when model metric is cosine
Wednesday	5/14	12:00 PM	6:00 AM	6.0	Test to get feedback on the results of the model when the training set data is expanded	Validating the effect of dataset size on model results	The original dataset size is about 4500 records. When it is expanded to its three times, the performance is better, but when the size of it is expanded to its six times, the performance is similar to the original one.
Thursday	5/15	3:00 PM	4:00 PM	1.0	project meeting with supervisor to show our outputs for this week	get suggestions from supervisor for our model training	next action: try more different parameters to improve the performance of the model
Thursday	5/15	5:00 PM	10:00 PM	5.0	test the number of neighbours of KNN-CF for the original dataset	Validating the effect of neighbours' number on model results	identify that the number of neighbors does not affect the model results much
Friday	5/16	2:00 PM	8:00 PM	6.0	change the weight for the attributes to test the results of the KNN-CF model	Validating which set of weight can get the best results	next action: still need to test more
Saturday	5/17						
Sunday	5/18	2:00 PM	3:00 PM	1.0	finish timesheet	update what I have done for this week	week 9 timesheet
			Total	26.0			

MCI Project Weekly Time Sheet

Team HA1 **Student ID** Zihan Luo a1916700 **Week starting:** 12-May

Day	Date	Time In	Time Out	Total hours	Task	How does it fit ito project plan?	Outcome/Next action
Monda	5/12	1:00 PM	5:00 PM	6.0	Two-tower model training	Model training	Increase the parameters of the model loss function to reduce losses and improve the accuracy rate.
Tuesd	5/13	6:00 PM	10:30 PM	4.5	Model parameter adjustment	Model training	Improve the accuracy rate of the model from 0.58 to 0.91.
Wedne	5/14	11:00 AM	4:30 PM	5.5	Adjust the weights of the features	Model training	Increase the weight processing to make the model prediction results more interpretable.
Thurs	5/15	6:00 PM	10:00 PM	4.0	Back-end UI component research	Technique architecture explore	Find some popular and useful CSS frame to improve interface style, like Tailwind,make coding process more easily.
Frida	5/16	11:00 AM	6:30 PM	7.5	Back-end interface page coding	Back-end implement	Finished the statistic page with home page, question page, and recommend page.
			Total	27.5			

MCI Project Weekly Time Sheet

Team HA1 **Student ID** Ziyan Zhao a1883303 **Week starting:** 12-May

Day	Date	Time In	Time Out	Total hours	Task	How does it fit ito project plan?	Outcome/Next action
Monday	5/12	1:00 PM	4:00 PM	3.0	1. Determine the type of recommendation system (from LightGCN to Content-based) 2. Re-analyze the importance of fields and formulate a scoring weight function	1. Determine the correct technical route 2. Build the core logic of training samples	1. Clearly use MLP + feature concatenation for content recommendation 2. compute_match_score() function; design weight table
Tuesday	5/13	1:00 PM	5:00 PM	4.0	Read data + split agent/user + construct positive/negative sample pairs (more trial and error)	Generate sample pairs and establish a labeling system	Complete User-Agency+Tag
Wednesday	5/14	12:00 PM	8:00 PM	8.0	1. Learn OneHotEncoder, encoding sample concatenation, and debugging dimensions 2. Use PyTorch to write MLP models and set optimizers + l	1. Construct model trainable input 2. Model has training capability	1. X, y are successfully encoded 2. The model can be trained and the loss is successfully reduced
Thursday	5/15	9:00 AM	2:00 PM	5.0	Write recommendation function and debug TopK recommendation logic + evaluate_model()	Enable the model to output recommendation results and support evaluation	Top-10 recommendation accuracy can be calculated
Friday	5/16						
Saturday	5/17						
Sunday	5/18	1:00 PM	8:00 PM	7.0	1. Add train/test split to test the impact of different splits on accuracy 2. Handle index errors and restructure evaluation logic	Make the project more standardized and more realistic	Try more parameter changes to see how the model performs
			Total	27.0			

MCI Project Weekly Time Sheet

Team HA1 **Student ID** Jianghao Jin a1880849 **Week starting:** 12-May

Day	Date	Time In	Time Out	Total hours	Task	How does it fit ito project plan?	Outcome/Next action
Monday	5/12						
Tuesday	5/13	4:00 PM	8:00 PM	4.0	train the model - two tower	train the model to work into the recommondation system	Adjust the training ratio of the model to increase the match score
Wednesday	5/14	5:00 PM	11:00 PM	6.0	train the model - two tower	train the model to work into the recommondation system	Adjust the weights of each item to improve the accuracy of the model
Thursday	5/15	3:00 PM	4:00 PM	1.0	Group meeting	Enhance the accuracy of the project and answer related questions	continue model training and testing plan
Friday	5/16	3:00 PM	9:00 PM	6.0	train the model - two tower	Train and test using different dataset segmentation ratios	Obtain the performance of the model at different proportions
Saturday	5/17	5:00 PM	8:00 PM	3.0	debug the model	Adjust the proportion of the dataset	Solve the problems that occur after adjusting the weights
Sunday	5/18	5:00 PM	11:00 PM	6.0	Improve the model recall rate and match score etc.	Test and adjust the weights to strengthen the model	Continue to adjust the test of the model
			Total	26.0			

MCI Project Weekly Time Sheet

Team HA1 **Student ID** Jianing Dang a1882117 **Week starting:** 12-May

Day	Date	Time In	Time Out	Total hours	Task	How does it fit ito project plan?	Outcome/Next action
Monday	5/12	11:00 AM	4:00 PM	5.0	Search for literature to find ways to adapt the NCF model to cold start scenarios. Three methods were sorted out, and finally the feature of adding content-based model was selected.	Researching solutions for the cold start problem is one of the key challenges in the recommendation system project. The literature review and method screening align with the project plan's goal of addressing model adaptation issues.	Through literature research, successfully identified three methods applicable to cold start scenarios, and determined the content-based model fusion approach as the best option.
Tuesday	5/13	11:00 AM	4:00 PM	5.0	Modify the code, combine NCF with content-based, split the data set, and test the model performance.	Code modification and model integration are core tasks in the project's technical implementation phase. The method of combining content-based model features is direct, aligning with the overall goal of optimizing recommendation system performance.	Completed the code integration of NCF with content-based models, and split the dataset into training, validation, and testing sets at an 8:1:1 ratio. Preliminary tests show that the adjusted NCF model can be run and generates expected result as well.The next step is to increase the amount of training data to verify model stability.
Wednesday	5/14	11:00 AM	4:00 PM	5.0	Gradually increase the amount of data processed by the model, modify model parameters, and improve performance	Data scale expansion and parameter tuning are necessary steps to ensure model stability in practical applications, consistent with the model validation phase in the project plan, preparing for final deployment.	Gradually increased the amount of processed data from the initial 1,000 records to the full dataset (approximately 4,500 records), discovering that model performance showed a declining trend with large data volumes. By adjusting the learning rate and batch size, the issue was partially alleviated, but accuracy still did not meet expectations.
Thursday	5/15	1:00 PM	6:00 PM	5.0	Write evaluation scripts for the ncf model and evaluate the model. Participate in the group meeting and modify the model according to the supervisor's suggestions to improve performance.	Model evaluation and group meeting feedback are quality control steps in the project iteration process, conforming to the regular review and optimization mechanisms in the project plan, ensuring that the development direction aligns with project objectives.	Completed evaluation scripts including multiple metrics such as accuracy, recall, F1 score, and AUC. Reported model performance issues in the group meeting. After modifying the model according to suggestions, there was a slight performance improvement but still not satisfactory. The next step is to assess whether to abandon the current NCF model.
Friday	5/16	11:00 AM	4:00 PM	5.0	The model performance is always unsatisfactory, so the ncf model is abandoned and the detailed process from model selection to evaluation is recorded.	The project plan includes model evaluation and decision points. Abandoning underperforming models and documenting the complete process reflects scientific research methodology, helping the team learn from failures and provide a basis for subsequent model selection.	Decided to abandon the NCF model for cold start scenarios, and documented the complete process from model selection, parameter adjustment to performance evaluation, including all attempted methods and encountered problems.
Saturday	5/17						
Sunday	5/18						
			Total	25.0			