Sep 6, 2022

Agenda:

- Follow up from last meeting
- Review recent activities
- Discuss/document issues that will affect your plan dates
- Review upcoming activities
- Discuss any new/continuing issues, assign action items as necessary

	Completed activities	Issues	To-dos
Team	- team meeting next Tue. 3pm		
Zhouyao	- implemented music encoder class init & forward methods - tested initializing music encoder & loading pretrained weight on AWS p2.xlarge - wrote bash script to set up musemorphose env. and run test script	- need Dataset & DataLoader class	- test music encoder forward method using REMI 1.7k data - write unit test for DataLoader - implement the music generate method
Nikhil	- Studied stable diffusion - Training process finalzied - shared and frozen layers protocol	-OOP for cross modal attnetion can be implemented carefully in a way that the code can be also used for stable diffusion if needed.	- Implement the cross attention for 2 modalities - With pluggable frozen layers to deal with other modality.
Xinyi	- finished reorganize code for feature generation;	- Several files unable to process (dropping the files for now)	- Continue working on chunking data into 16 bars

	- received id list from Jing Xi and generated basic REMI files (not chunked)		- Finish data and send back to Jing Xi for further label matching - implement Dataset and DataLoader class - test Dataset and DataLoader class on test scripts
Jingxi	- Generated list of recording IDs for Xinyi - add comment to pre-processing code		- generate positive dataset in (music, text) format for all reviews & genre - implement method to sample negative genres - generate negative examples

- (music1_recording1_chunk1, review1)
- (music1_recording1_chunk2, review1)
- (music1_recording2, review1)
- (music1_recording3, review1)
- (music1_recording1, review2)
- (music1_recording2, review2)
- (music1_recording3, review2)
- (music1, genre list (e.g. “emo rock, alternative rock”)) -> review0
- Create negative samples: replace every genre with one that’s not associated with the music

Sep 3, 2022

Agenda:

- Follow up from last meeting
- Review recent activities
- Discuss/document issues that will affect your plan dates
- Review upcoming activities
- Discuss any new/continuing issues, assign action items as necessary

	Completed activities	Issues	To-dos
Team	- team meeting Tue 3pm; ~3:40pm next Tue on zoom	- proposal: Tue afternoon/evening for team meeting & record standup - implementation details about dataset: 1) train/val/test split; 2) split by songs; 3) data format; - project name	
Zhouyao			- follow up on email to prof. - implement music encoder class skeleton - implement music encoder init() & initialize_weight methods - test initialize music encoder on AWS P instance

Nikhil			- High level OOP architecture for Cross attention implementation - Finalizing the training process with few shared layers (and other unshared) layers across tasks - Literature review on stable diffusion as an alternative to transformer based attention
Xinyi			Reorganize code for feature generation; Start implementing code for chunking music pieces into 16-bar segments
Jingxi			Generate list of recording IDs needed for Xinyi

Aug 31, 2022

Agenda:

- Follow up from last meeting
- Review recent activities
- Discuss/document issues that will affect your plan dates
- Review upcoming activities
- Discuss any new/continuing issues, assign action items as necessary

	Completed activities	Issues	To-dos
Team		Q: overlappings in the standup and weekly meetings	- fall plan slides & presentation
Zhouyao			- fall plan Intro & hypothesis slides - Ask Prof. Nyberg about weekly meeting at 11am every Wednesday
Nikhil			- fall plan Model/Algorithm
Xinyi			- fall plan Experimental evaluation & data
Jingxi			- fall plan Fall development goals & design

Fall Plan

Week No. (DDL)	Task	Task No.	Sub-task	Dependencies	Assigned to
9/4	Fall plan	V0	Submit fall plan and presentation, set up weekly meeting documents and schule		Entire team
9/7	Dataset preparation	A1	Generate list of recording IDs needed		Cecilia
9/14	Dataset preparation	A2	Generate feature data with new recordings (REMI Events)	A1	Silvia
9/14	Dataset preparation	A3	Music data augmentation by chunking up each piece of music into 16-bar segments	A2	Silvia
9/14	Dataset preparation	A4	Analyze sample text label (potential Text preprocessing for labels)		Cecilia
9/21	Dataset preparation	A5	Match chunked music segments with text for new positive and negative tuples	A3	Cecilia
9/7	Model building	B1	Implement music encoder using MuseMorphose		Zhouyao
9/7	Model building	B2	Implement BERT text encoder		Nikhil
9/21	Model building	B3	Implement cross-attention	B1, B2	Nikhil
9/21	Model building	B4	Implement contrastive loss	B1, B2, B3	Zhouyao
10/10	Model building	B5	Implement metrics (e.g. log likelihood, coherence scores, etc.) for model evaluation		Silvia
9/23	Model building	B6	Develop model training pipeline	B1, B2, B3, B4	Zhouyao, Nikhil
10/6	Model building	B7	Develop model inference pipeline (the generative module)	B1, B2, B3, B4	Zhouyao, Nikhil
10/10	Baseline result	C1	Model training	A, B1, B2, B3, B4	Entire Team

10/17	Baseline result	C2	Model evaluation	A, C1, B5	Silvia
10/24	Midterm Check-up	V1	Check-up meeting with Prof. Nyberg		Entire Team
10/31	Experimentation	D1	Error analysis	A, B	Entire Team
11/16	Experimentation	D2	Hyperparameter tuning	A, B	Entire Team
12/7	Experimentation	D3	Other model improvement ideas (e.g. data augmentation, different event definition, etc.)	A, B	Entire Team
11/20	Final	V2	Draft Report		Entire Team
12/7 - 12/14	Final	V3	Final Presentation		Entire Team
12/15	Final	V4	Final Report		Entire Team