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| **Date** | **Description** | **Complete by date** |
| 14-OCT  (assignment-01) | * Why we do **dot product** in text/LM (use python code to showcase, with viz) * Why we divide by the mag of A and B vectors in cosine * Freq\_penalty in OpenAI chat endpoint (use examples to demonstrate)      * Presence\_penalty (use examples to demonstrate) | 21-OCT |
| 14-OCT  (self-volunteered) - Komal | Write up or a blog with Open AI Chat Completion endpoint related settings/ parameters |  |
| 24-OCT  (Assignment-02) | Build a classification model on IMDB dataset (keras) using SimpleRNN   * Pre-processing steps   + Contractions/expansions   + Punc, digits, single or 2 chars word, multiple spaces   + Newline removal   + Html tags removal   + Wordcloud (positive and negative) – top 10 pos and neg words * Set baseline classification using MNB or Log Reg * Use Simple RNN with the pre-processed data (\*\*model prep will take time\*\* - COLAB)   + Keras tokenizer or use word vectors (word2vec or Glove)   + 1 layer RNN   + 2 layer RNN   + LSTM   Explain how LSTM (forget gate) intuitively forgets some of the input words and retains the other words | 5th Nov |
| 30-OCT  (Assignment-03) | **Task**   * Develop a platform to generate custom images and designs for banners and posters based on user-provided text prompts. * Leverage OpenAI’s DALL-E model to transform creative ideas into visually engaging images. * Target this platform for Netflix's promotional campaigns, ensuring captivating designs that enhance audience engagement.   **Action Steps**   * **Import Libraries …** * **Define Image Generation Function**: Create a function generate\_image that uses text prompts to generate images. * **Build Streamlit Interface**:   + Use Streamlit widgets to create a text input field for user prompts.   + Display generated images in an image container. * **Launch the Platform**: Make the Streamlit interface available for user interactions by running the app. * **Evaluate the generated image**   + Write on human evaluation (Baseline)   + Quantitative metrics for images .. use CV2 etc   + Use CLIP (thru hugging face) to compare the prompt and generated image (to get a relevance score) | 8th NOV 2024 |
| 07 NOV 2024  (Assignment 04) | **VAE  - dataset (fashion MNIST)**   * Normalization * Model * Encoder * Decoder * AE * Custom loss function * Hyperparameters (lr, batch size, LS dim) * LS visualization * Evaluation metrics * MSE… SSIM * Generative abilities * Use of the model for anomalies | 21 NOV 2024 |