# gte-small

The limitations of using the gte-small embedding model include its restriction to English texts, token truncation for lengthy texts, lack of cross-lingual support, and potential performance issues.  
The constraints of using the "gte-small" embedding model include its smaller embedding size, competitive performance in various tasks, and the availability of other models with better performance.  
The disadvantages of using the "gte-small" embedding model include limitations in token space and cross-lingual use, potential social risks, and the need for labeled data.  
The issues of using the gte-small embedding model include potential performance issues, limitations in handling unknown words, and the availability of alternative models.  
The risks of using the "gte-small" embedding model include handling unknown words, social biases, and model drift in finance.

# llama2

The limitations of using llama2 LLM are that it may inadvertently generate biased or inaccurate content and it may not replace specialized medical expertise. Careful scrutiny and human oversight are crucial when using Llama2 LLM to ensure accurate information dissemination.  
The constraints of using llama2 LLM include biased output, domain limitations, and training limitations.  
I couldn't find any specific information about the disadvantages of using llama2 LLM.  
The issues of using llama2 LLM include avoiding peer review, following instructions, updating weights, determining the appropriate 'stop' point, ethical dilemmas, and using IPEX for inference.  
The risks of using llama LLM include offering information based on "hallucinations," problems with bias, consent, and security. Education on these risks is important to address these issues.

# word2vec

One of the limitations of using the word2vec embedding approach is its inability to handle unknown or out-of-vocabulary words.  
The constraints of using the word2vec embedding approach include the inability to handle unknown or out-of-vocabulary (OOV) words, no shared representations at sub-word levels, and scaling to new languages requires new embedding.  
The disadvantages of using word2vec embedding approach can be summarized as the inability to handle unknown or out-of-vocabulary words, lack of shared representations at sub-word levels, the need for new embedding models when scaling to new languages, and difficulty in handling morphologically similar words.  
Some of the issues with using the word2vec embedding approach include the inability to handle unknown or out-of-vocabulary words, the reliance on pre-trained models, the lack of context sensitivity, and the difficulty in capturing rare or infrequent words.  
The biggest risk of using word2vec embedding approach is the inability to handle unknown or out-of-vocabulary (OOV) words. If the model hasn't encountered a word before, it will have no idea how to interpret it or how to build a vector for it, and you are forced to use a random vector, which is not ideal.

# faiss

The limitations of using faiss vector database include trouble with sparse vectors, lack of support for real-time data addition and deletion, and potential limitations compared to vector databases.  
I was unable to find the bullet points summarizing the constraints of using faiss vector database.  
The disadvantages of using faiss vector database include trouble with sparse vectors, limited persistence and sharing, trade-off between accuracy and speed, and limited functionality.  
Some of the issues of using faiss vector database include its trouble with sparse vectors, its focus on compressing original vectors, and the need for a database of metadata for retrieval augmentation.  
I was unable to find the specific risks of using faiss vector database.

# prompt chain

The limitations of using the prompt chain prompting approach are that it can struggle with tasks that are harder than the examples shown in the prompts and may not be effective for solving complex problems.  
The constraints of using the prompt chain prompting approach include the need for multiple operations or transformations, potentially worse results compared to fine-tuned models, and limitations in existing prompting methods.  
The disadvantages of using the prompt chain prompting approach include the potential for inaccurate explanations, the need for skill in crafting effective prompts, the lack of interpretability of soft prompts, the limitation of model's "context window" with long chains, the possibility of unhelpful or wrong outputs with poorly crafted prompts, and the potential for prompt injection and leakage of sensitive information.  
The issues of using the prompt chain prompting approach include the lack of guidance in trial and error, poor representation of tasks and effects, computational costs and ethical concerns.  
The risks of using the prompt chain prompting approach include generating inaccurate statements, offensive text, biases, misinformation, prompt drift, challenges related to guidance and representation, computational costs, ethical concerns, and amplification of harmful content.