MemoriEase at the NTCIR-17
Lifelog-5 Task

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Outline

1. Introduction
2. Methodology
3. UI
4. Conclusion
Introduction

- MemoriEase is an automatic lifelog retrieval system, upgraded from interactive system at LSC23.
- MemoriEase employs embedding-based search with state-of-the-art BLIP-2 model.
- New enhancement in using LLM to rewrite query.
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Methodology

Figure 1: MemoriEase overview
Methodology

- A lifelog dataset of 18-month, from January 2019 to June 2020. Comprise of 725k images.
- Blur image removal using edge weight computation.
- Metadata extraction, enhancement and cleaning.
- New filters by metadata: semantic name, hour, weekend.
Methodology

- BLIP-2 extracts the embedding of images and query to compute the cosine similarity.
- Elasticsearch is a vector-based search engine.
- ChatGPT paraphrases the original query to N queries and perform search parallelly.
- Weighted average for relevant score.
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UI
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Conclusion

- Introduce the automatic manner of MemoriEase to take part in the NTCIR-17 Lifelog-5 Task.
- New processing technique in LLM for query rewriting.
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Q&A
Thank you!