Diffusion Model in Recommendation

（2024)

Reported by Ke Gan

1. Introduction
2. Approach
3. Experiments

2023_ACM_ DiffuRec: A Diffusion Model for Sequential Recommendation

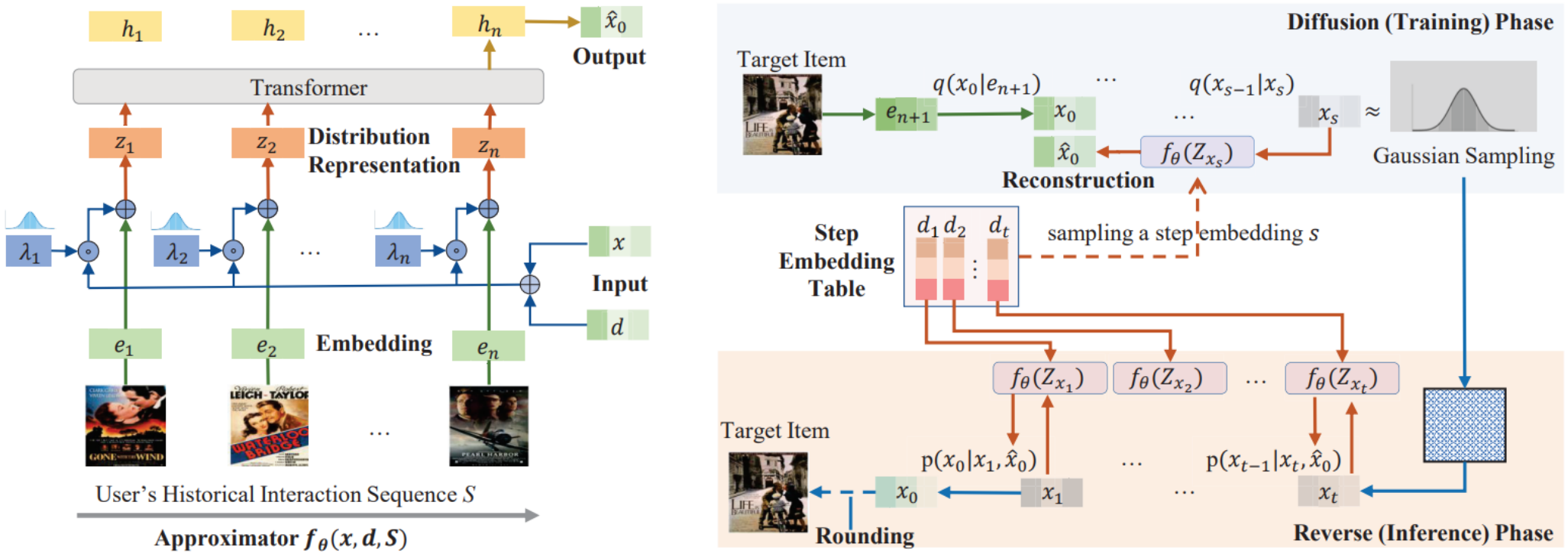


Fig. 2. Architecture of DiffuRec. The figure on the left is the *Approximator*, a Transformer backbone for target item representation reconstruction. The two figures on the right illustrate the diffusion phase and the reverse phase, respectively.

Code:https://github.com/WHUIR/DiffuRec

WSDM '24, DiffKG: Knowledge Graph Diffusion Model for Recommendation

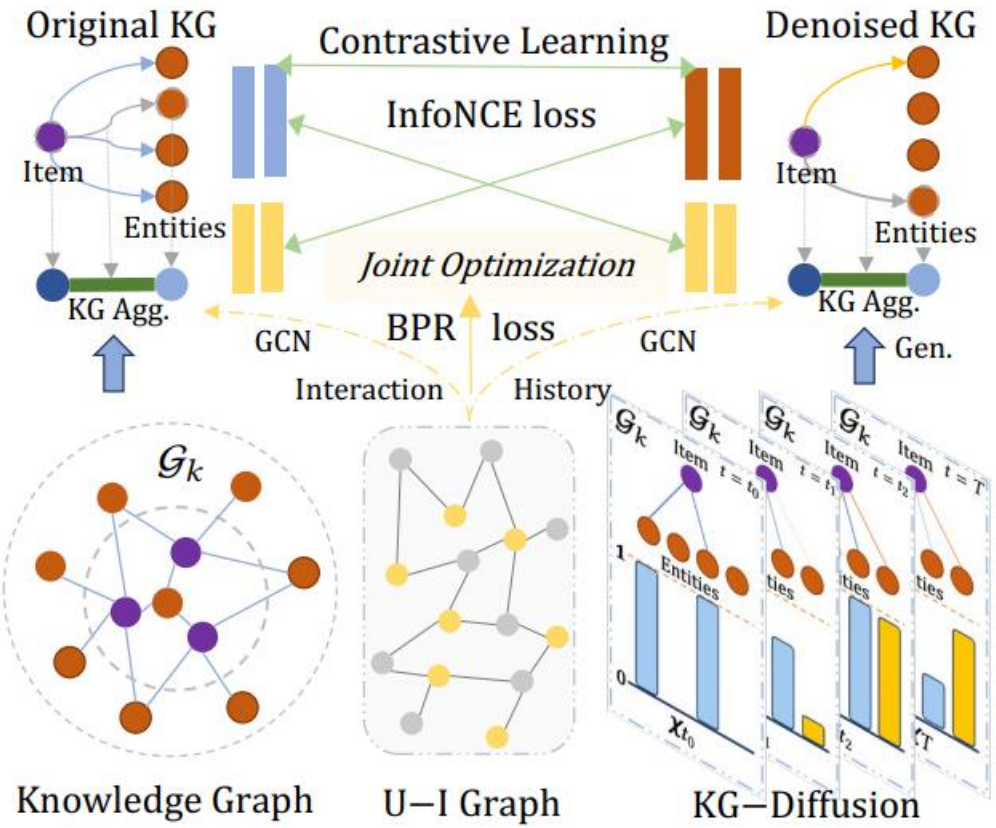


Figure 1: Overall framework of the proposed DiffKG model.

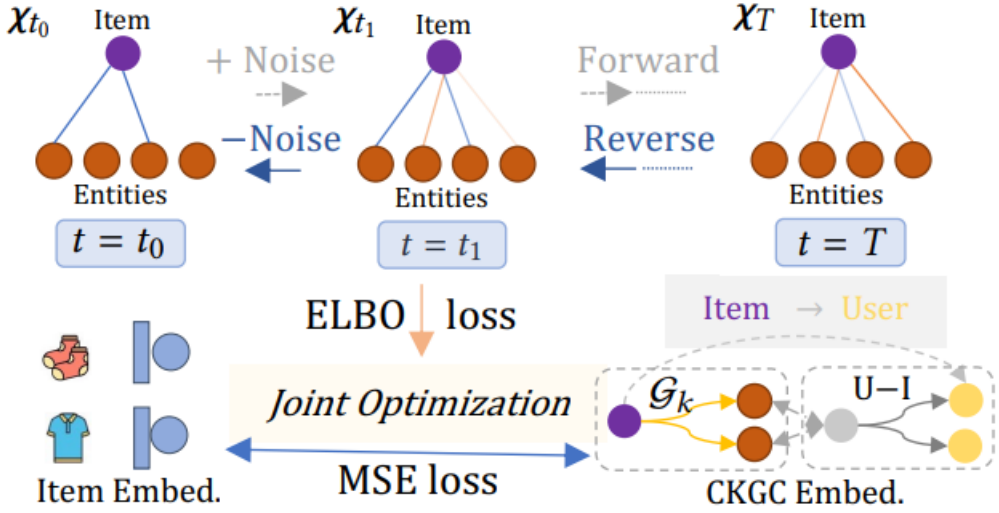
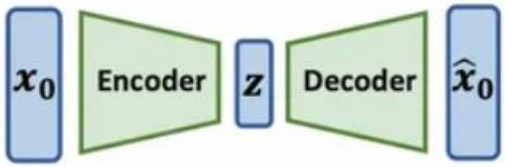


Figure 2: Diffusion Model with Knowledge Graph.

Code:https://github.com/HKUDS/DiffKG



(a) Illustration of VAE.

SIGIR '23, Diffusion Recommender Model

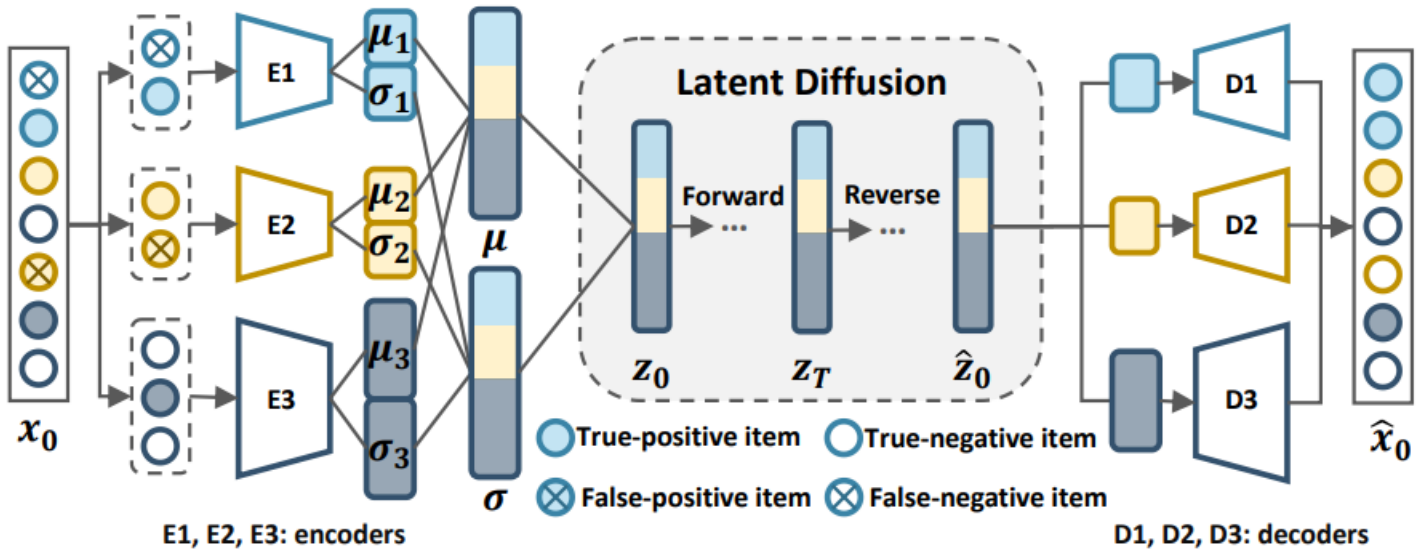
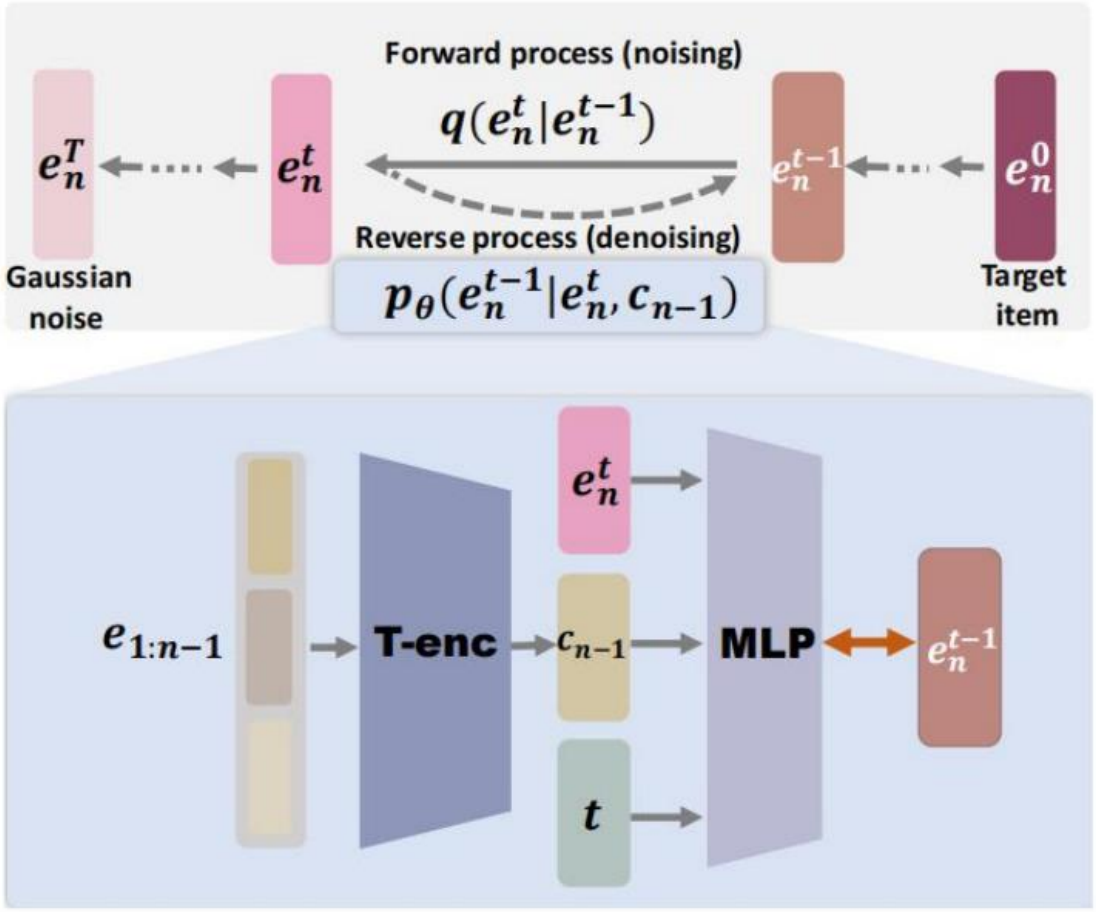


Figure 3: Illustration of L-DiffRec. $z_0 = \mu + \sigma \odot \epsilon$, where $\epsilon \sim \mathcal{N}(0, I)$. L-DiffRec clusters items for compression via multiple VAEs and conducts latent diffusion.

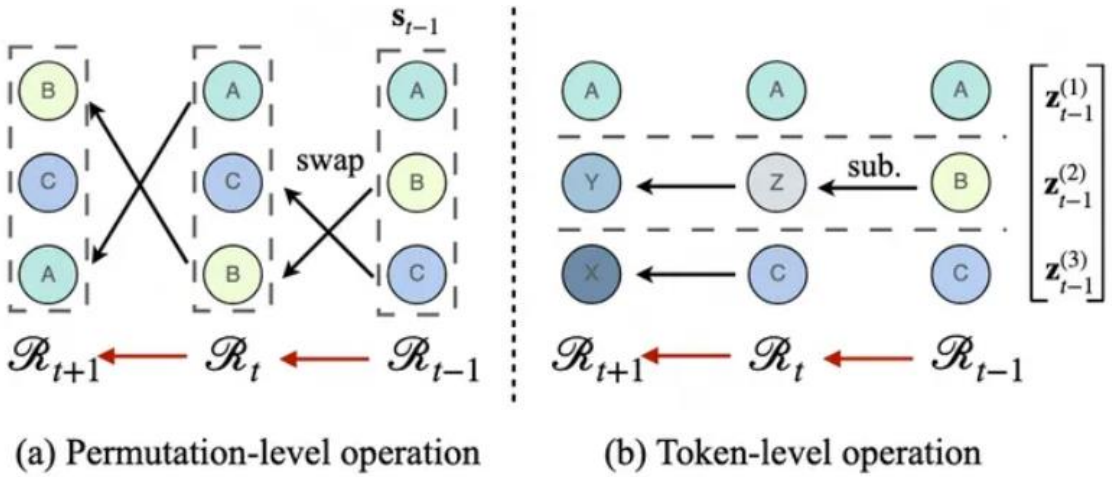
GitHub - YiyanXu/DiffRec: Diffusion Recommender Model

2023_NeurIPS_generate-what-you-prefer-reshaping-sequential-recommendation-via-guided-diffusion-Paper-Conference



Code:https://github.com/YangZhengyi98/DreamRec

WWW'24 Discrete Conditional Diffusion for Reranking in Recommendation



(a) Permutation-level operation (b) Token-level operation

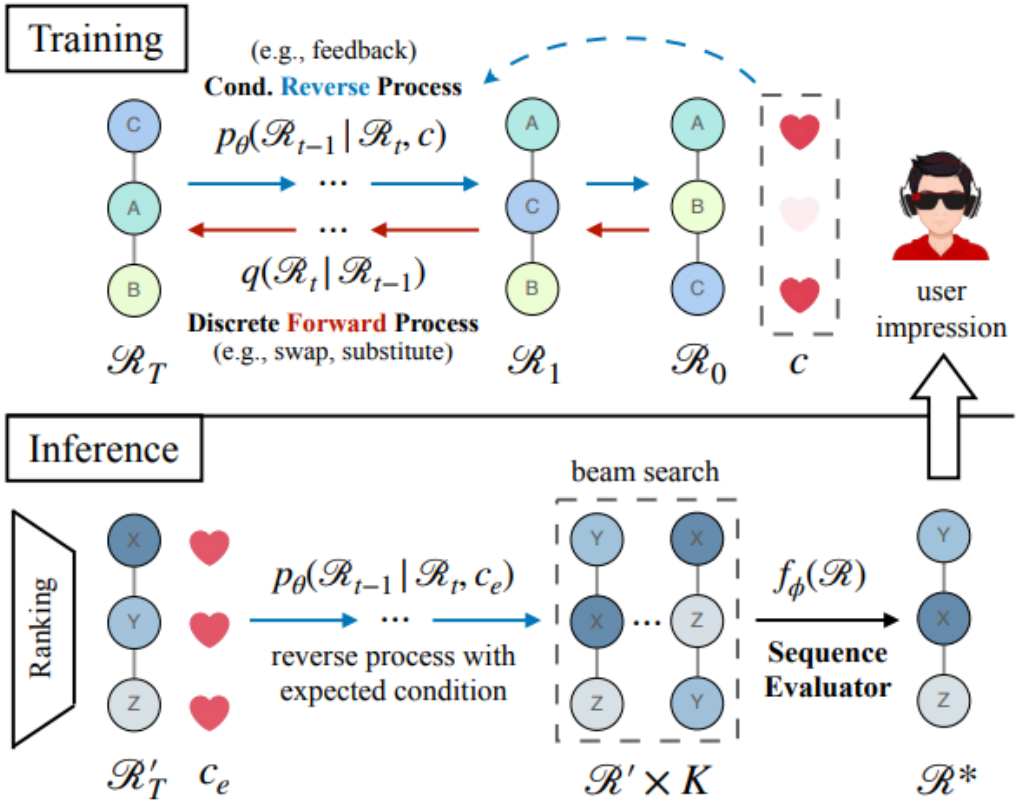


Figure 2: An illustration of the DCDR framework, which

Thank you!