Node : (user) (Song) (context) (text data) → from lyrics & reviews

(embedded BERT based)

Edge : user — Song : play history

user — context : given

Song — text data : Song's information.

Song — song : Sequentially played

our
[CASMR] (Context - Aware Sequential Music Recommender)

* Architecture : Heterogeneous GNN → multi-type nodes GNN Layer

- Sequential nature : using Transformer-like attention mechanism.

    ↳ using top @n recently played musics

    ∴ reccomendation heavily relies on recent loggings

- Pros
  1. Both sequential / contextual patterns used.
  2. cold start (w.o. user-music interaction) can be solved by using user context ⟺ music reviews & lyrics.
  3. By modifying attention mechanism ⟶ short-term (recent)

     long-term (preference)

     both can be handled.

- Cons
  1. High computational cost
  2. High Graph construction overhead.
  3. Issue on Scalability i.e. new user / new song