

Item Profile Generation

Dataset



Metadata m

Title: Tomb Raider
Description: ...
Attributes: ...
Reviews ...

Item Profile P

<Tomb Raider>

Embark on an iconic adventure with Tomb Raider, a groundbreaking **action-adventure** game that introduced players to the fearless archaeologist **Lara Croft**. Set against stunningly **diverse landscapes**, from treacherous tombs to magnificent ruins, ... This game redefined the action genre and laid the foundation for **cinematic storytelling** in video games, ...

Knowledge Graph Construction

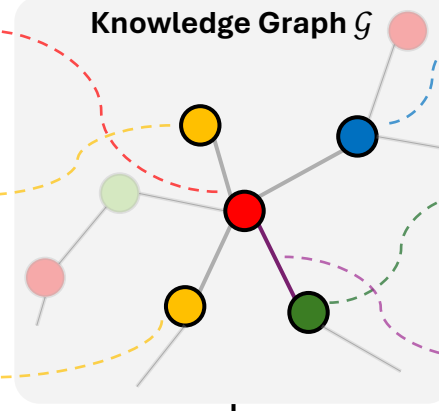


e_{name} : 'Tomb Raider',
 e_{type} : 'item',
 e_{desc} : 'groundbreaking action-adve ...',
 e_{emb} : ...

e_{name} : 'cinematic storytelling',
 e_{type} : 'feature',
 e_{desc} : 'Cinematic Storytelling is a n...',
 e_{emb} : ...

e_{name} : 'diverse landscapes',
 e_{type} : 'feature',
 e_{desc} : "The game features a variety ...",
 e_{emb} : ...

Knowledge Graph \mathcal{G}



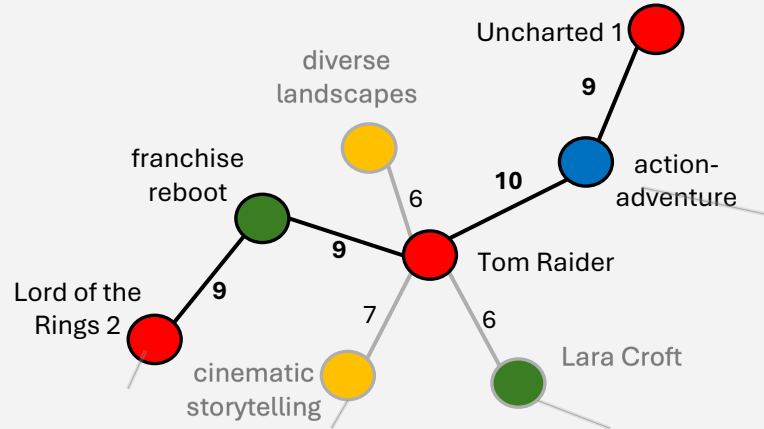
e_{name} : 'action-adventure',
 e_{type} : 'genre',
 e_{desc} : 'A genre blending elements of...',
 e_{emb} : ...

e_{name} : 'Lara Croft',
 e_{type} : 'etc',
 e_{desc} : 'An iconic game character of ...',
 e_{emb} : ...

r_{name} : ('Tomb Raider', 'Lara Croft'),
 r_{desc} : 'Lara Croft is the main character driving the player's experience in Tomb...',
 r_{emb} : ...

Multi-hop Reasoning-based Retrieval

LLM-guided Reasoning over Knowledge Graph



Keywords H_u

"Tomb Raider",
"Fallout 3",
"Dead or Alive ...",
"Saints Row 2 ...", ...

Candidates \mathcal{C}_u

"Uncharted 1",
"Lord of the Rings 2",
"Final Fantasy", ...

Contextual Text \mathcal{T}_u

{"Uncharted 1": "The first game in the Uncharted series that follows tre ..."},
{"Uncharted 1", "action-adventure": "The game offers a unique action ...", ...}

Query

I've purchased the following items in the past:
{"Tomb Raider", "Fallout 3", "Dead or Alive Ultimate", "Saints Row 2 - Xbox 360", ... }.
There are candidate items that I can consider purchasing next: { }.

Please recommend the top-10 items among the candidate items that I would most likely interact with next, based on the past interactions.

Retrieval-augmented Recommendation

User Prompt

System Prompt

Parse

Recommendations

1. Lord of the Rings 2,

2. Devil May Cry 2,

3. Uncharted 1,

4. Resident Evil 4,

5. Pokemon:Yellow,

6. Far Cry 3,

...

10. Kingdom Hearts 2"

\hat{y}_u