

DAGGER: Data Augmentation for Generative Gaming in Enriched Realms

Chris Callison-Burch and Ajay Patel and James Dennis and Andrew Zhu

University of Pennsylvania

{ccb, ajayp, jmsdnns, andrz}@seas.upenn.edu

Abstract

DAGGER is a synthetically generated dataset for creating text adventure games from fiction and for generating prose from game states. It extends the LIGHT dataset by enhancing the original game locations with new characters and items generated using GPT-4. Additionally, each location is paired with a piece of short fiction, totaling 259,582 words across the entire dataset. DAGGER was created using a novel methodology that leverages the capabilities of GPT-4 and a new tool called DataDreamer, which simplifies the implementation of complex prompting workflows and enables the generation of high-quality synthetic training data. The DAGGER dataset is used to train two baseline models: one that converts game states into fictional narrative descriptions and another that predicts game states from fiction. These models demonstrate the usefulness of the dataset for tasks involving the mapping between stories and playable text adventure games. We make the dataset, the trained models, and a Python game engine publicly available to facilitate further research.

1 Introduction

Interactive fiction games, such as text adventures, provide a rich platform for studying grounded dialogue and language understanding. These games allow players to interact with a virtual world through natural language, requiring models to understand and generate contextually relevant responses. The LIGHT dataset (Learning in Interactive Games with Humans and Text) (Urbanek et al., 2019) was instrumental in advancing research in this area, spawning a line of interesting research that explores various aspects of grounded dialogue, such as goal-oriented conversations, gender bias mitigation, and how well chatbot-driven characters can maintain their identity (Fan et al., 2020; Prabhumoye et al., 2020; Dinan et al., 2020; Ammanabrolu et al., 2020; Shuster et al., 2020).



Figure 1: Gratuitous but awesome 8-bit logo

We extend LIGHT with a new methodology that enables the creation of large-scale datasets that can enable the automatic mapping between stories and playable text adventure games. This capability could potentially allow authors to convert their works into interactive experiences, similar to how Douglas Adams transformed his "The Hitchhiker's Guide to the Galaxy" series into a text adventure game. In the reverse direction, this capability could allow for the generation of rich and grounded narrations from game states (e.g. Zhu et al. (2023)).

We introduce DAGGER (Data Augmentation for Generative Gaming in Enriched Realms), a novel approach to augmenting game states in the LIGHT dataset with literary fiction. By leveraging the power of large language models, such as GPT-4 (OpenAI et al., 2024), and our custom-built tool DataDreamer (Patel et al., 2024), we generate high-quality research data that rivals crowdsourced datasets like LIGHT. This synthetic data generation approach enables us to create a large enough

dataset for training models to automatically map between stories and playable text adventure games.

The contributions of our work are as follows:

- We present a novel methodology for generating synthetic data using GPT-4 and DataDreamer, which involves creating (fiction, JSON) pairs based on game locations from the LIGHT dataset.
- We introduce the DAGGER dataset, an extension of LIGHT that includes a diverse set of generated fiction stories paired with their corresponding game states.
- We train baseline models on the DAGGER dataset and release them on the Hugging Face Hub. We estimate the performance of these baselines, and provide samples to illustrate the potential of the dataset in learning to map between stories and playable text adventure games.

2 Methodology

Recent work has introduced DataDreamer (Patel et al., 2024), an open-source Python library designed to simplify the implementation of large language model (LLM) workflows. DataDreamer provides a standardized interface for managing complex prompting workflows with multiple steps, enabling researchers to generate synthetic training data and train models to perform tasks of interest. The library integrates with other open-source LLM libraries like Transformers (Wolf et al., 2019), as well as commercial model APIs like OpenAI and Anthropic for commercial LLMs. DataDreamer supports various LLM workflows, including synthetic data generation, task evaluation, fine-tuning, instruction-tuning, and alignment, and simplifies the process of chaining data between tasks, making it easier to implement multi-stage workflows in a single, well-documented, and easily reproducible Python program.

In this work, we employ DataDreamer to generate the DAGGER dataset, a synthetic dataset that pairs literary fiction with corresponding JSON game states. By leveraging the capabilities of DataDreamer, such as its standardized API for prompting and training models, support for multiple LLMs, and automatic caching and reproducibility features, we are able to efficiently generate high-quality synthetic training data. This data

is then used to train models that can automatically map between stories and playable text adventure games, demonstrating the effectiveness of the DataDreamer library in facilitating research on complex LLM workflows.

The process of generating the DAGGER dataset involves three main steps: enhancing the LIGHT data, synthetic story generation, and dataset filtering.

2.1 Data Enhancement

We begin by enhancing the game locations from the LIGHT dataset (Urbanek et al., 2019). For each location, we keep the name, description, and background from the original dataset. We then use GPT-4 to generate new characters and items that are contextually relevant to each location.

To create the new characters, we provide GPT-4 with the category, location name, and location description as inputs, along with a set of predefined instructions that specify the desired format and structure of the generated characters. These instructions ensure that the generated characters include a name, a visual description, a persona (written in first person), an inventory of items, and a goal. GPT-4 then generates 1-3 new characters for each location based on these guidelines.

Similarly, for generating new items, we input the category, location name, location description, and the names of the generated characters (if any) into GPT-4. We also provide a set of instructions specifying the desired format and structure of the items, including a name, a short description, a detailed "examine" description, and a set of properties that define how the item can be used in the game (e.g., whether it is a container, food, weapon, etc.). GPT-4 then generates a set of new items for each location and character based on these guidelines.

The result of this data enhancement step is an expanded version of the LIGHT dataset, with each location now containing additional contextually relevant characters and items.

2.2 Synthetic Story Generation

To generate synthetic stories for each enhanced game location, we employ a multi-stage prompting workflow using GPT-4. The stages are as follows:

1. **Style Prompts:** We prompt GPT-4 to imagine each game location as a scene in a novel and to specify the style of the novel, the narrative voice (e.g., third-person or first-person

Location: {game state}
 Given this data of a location, imagine that this was going to form the scene in a novel. What style of novel would it be? Pick one style and be specific. Pick a narrative voice. Would the scene be narrated in the 3rd person, or would it be narrated from the perspective of one of the characters? If there are multiple characters, and we found them in medias res, what would the conversation be about?

Table 1: We prompt GPT-4 for what style, narrative voice, and potential character interactions might be a good fit when generating a story about a game state.

from a character’s perspective), and potential character interactions (if there are multiple characters in the scene).

2. Fiction Writing Prompts: Using the location details and the generated style prompt as inputs, we ask GPT-4 to create a set of instructions for an LLM to write a literary scene based on the game location. These instructions include details on the desired writing style, narrative voice, character interactions, and whether the scene is an introduction to the location or a later scene in the story.
3. Fiction Generation: Finally, we input the game location details and the generated fiction writing prompts into GPT-4 and ask it to generate a literary scene based on the provided instructions. The resulting output is a fictional story that is contextually grounded in the game location and incorporates the specified writing style, narrative voice, and character interactions.

The result of this synthetic story generation step is a set of (fiction, JSON) pairs, where each fictional story is associated with its corresponding game location in JSON format.

2.3 Dataset Filtering

After generating the (fiction, JSON) pairs, we perform a dataset filtering step to ensure consistency between the game location JSON and the generated fiction. We provide GPT-4 with the generated fiction and the input game location JSON as prompts, and ask it to extract a subset of the location JSON that is directly supported by or can be inferred from the fictional story.

Location: {game state}
 Style: {output from style prompt}
 Given this data of a location and writing style, imagine that this was going to form the scene in a novel, and write a prompt for an LLM that instructs it how to write the scene in that style for the location. The LLM will have access to the data of the location. Also, decide whether this scene occurs in a later chapter when the setting has already been introduced, or if this is the first time it is being introduced, and shape the writing instructions appropriately.

Table 2: We prompt GPT with the output of the previous style prompt, and ask it to create instructions for an LLM to write a literary scene for the game state.

Task: Return the exact same location JSON object provided except remove any keys or values from the JSON that are not directly supported in the story or cannot be inferred from the story. Furthermore, rewrite any textual descriptions of locations, characters, items, etc. in the JSON so that they only contain details from the story; these should not contain any details that cannot be inferred from the story directly. Return just the JSON object.
 Location JSON: {game state}
 Story about the location: {fiction}

Table 3: We prompt GPT with the output of the previous style prompt, and ask it to create instructions for an LLM to write a literary scene for the game state.

Specifically, we instruct GPT-4 to remove any keys or values from the JSON that are not directly mentioned or implied in the story. We also ask it to rewrite any textual descriptions of locations, characters, items, etc., in the JSON to only include details that are present in the story. This filtering process ensures that the final dataset contains (fiction, JSON) pairs where the JSON game locations are fully aligned with their corresponding fictional stories.

The result of this dataset filtering step is the final DAGGER dataset, consisting of a diverse set of literary fiction stories paired with their corresponding contextually grounded JSON game locations. This dataset can be used to train models to automatically map between stories and playable text adventure games in both directions.

3 Baseline Models and Evaluation

To demonstrate the usefulness of the DAGGER dataset for the tasks of fiction generation from game states and game state prediction from fiction, we train two baseline models for two tasks:

1. **Fiction Generation from Game State** – A model that generates a literary scene from a JSON game state. For this model, we use the full JSON game state as the input.
2. **Game State Prediction from Fiction** – A model that generates a JSON game state consistent with a literary scene. For this model, we use the filtered JSON game state as the output to ensure alignment with the scene.

These models serve as a starting point for future research and provide a benchmark for the performance that can be achieved using the DAGGER dataset.

For each baseline model, we use a version of the TinyLlama 1.1B model (Zhang et al., 2024) with a 32K context length¹. TinyLlama adopts the same architecture and tokenizer as Llama 2, allowing it to be easily integrated into many open-source projects built upon Llama. Additionally, TinyLlama’s compact size of 1.1B parameters makes it suitable for a wide range of applications with restricted computation and memory footprints.

We perform an 85/5/10% train-validation-test split of our datasets and fine-tune a LoRA adapter (Hu et al., 2021) with an early stopping patience of 5 epochs, using a batch size of 32 examples and a learning rate of 1e-3. The validation split is used for early stopping and validation metrics during training. With the held-out test split, we also propose simple automatic evaluations for both tasks, discussed below.

Fine-tuning our smaller baseline models on DAGGER is essentially a knowledge distillation task (Hinton et al., 2015), as the DAGGER dataset is a synthetic dataset produced by a larger model, GPT-4. This approach has implications for the potential of synthetic data generation to enable the training of new models for tasks where there was previously no available data, such as converting literary fiction into games and tracking game states.

3.1 Fiction Generation Evaluation

We evaluate the quality of stories generated by our smaller baseline model in comparison to the

¹https://huggingface.co/LouisML/tinyllama_32k

quality of stories generated by GPT-4. Automatic story generation often uses human evaluation, as automatic evaluation metrics like BLEU (Papineni et al., 2002), ROUGE (Lin, 2004), and BERTScore (Zhang et al., 2020) do not correlate well with human evaluation on long narratives (Chhun et al., 2022). Since the fiction generated by our models is more constrained by the input JSON game state than the typical open-ended story generation setting, we propose a simple automatic evaluation to measure the similarity of generated fiction to the fiction generated by GPT-4 using semantic similarity embeddings² (Günther et al., 2023; Reimers and Gurevych, 2019) that are specifically trained for performing long document similarity. We find the baseline model we trained achieves an average cosine similarity of 0.956 over the test split. An example of fiction generated by our baseline model in comparison to the fiction generated by GPT-4 found in DAGGER can be found in Appendix E.

3.2 Predicted Game State Evaluation

We evaluate the accuracy of JSON game states our baseline model predicts given a literary scene as input. We measure the precision, recall, and F1 of each key/value in the predicted JSON game state generated by our baseline model against the reference JSON game state from the DAGGER dataset. When comparing string values in the JSON, we scale the cosine similarity between the embeddings³ of the two strings between 0 and 1 and use that value instead of a binary value when computing precision and recall. We find the baseline model we trained achieves an average precision of 0.541, an average recall of 0.334, and an average F1 of 0.413 over the test split. An example predicted JSON game state generated by our baseline model in comparison to the reference JSON game state found in DAGGER can be found in Appendix F.

4 Datasets and Models

The DAGGER NLP dataset is a collection of JSON objects specifically tailored for text adventure games. It is an extension of the LIGHT dataset (Urbanek et al., 2019), enriched using GPT-4. The DAGGER dataset encompasses 28 games, with a total of 532 game locations, 1,571 characters, and 6,443 items. While the locations and game categories are retained from the LIGHT dataset, the

²[jinaai/jina-embeddings-v2-base-en](https://huggingface.co/jinaai/jina-embeddings-v2-base-en)

³[jinaai/jina-embeddings-v2-base-en](https://huggingface.co/jinaai/jina-embeddings-v2-base-en)

characters and items are re-generated using GPT-4. Additionally, each location includes a synthetically generated piece of short fiction, just under 500 words, resulting in a grand total of 259,582 words of fiction across the entire DAGGER dataset. The DAGGER data is available at <https://github.com/dagger-realms/DAGGER/>.

We release our two baseline models trained on the DAGGER dataset discussed above:

1. **Fiction Generation from Game State** – A model that converts game states into fictional narrative descriptions. This model can be found at https://huggingface.co/dagger-realms/dagger_to_narrative.
2. **Game State Prediction from Fiction** – A model that converts fiction stories into corresponding game states. This model can be found at https://huggingface.co/dagger-realms/narrative_to_dagger.

These resources serve as valuable assets for researchers and developers exploring narrative generation and text-based game design in NLP. The DAGGER dataset and the trained baseline models provide a foundation for further research and development in this area, enabling the creation of more immersive and interactive text-based gaming experiences.

5 Game Engine

To facilitate the development and testing of text adventure games generated using the DAGGER dataset, we have created an open-source Python package called *text_adventure_games* inspired by Adventuron (Adventuron Software Limited, 2024). Our package provides a simple and intuitive framework for defining game elements, such as locations, items, characters, and actions, and includes a game loop that handles user input and updates the game state accordingly. The main classes in the *text_adventure_games* package are:

- **Things:** Locations, items, and characters in the game world. Things can have properties that describe their state and influence how they interact with other things. For example, a poisonous potion might have the property `is_poisonous` set to `True`, or a locked door might have `is_locked` set to `True`.
- **Actions:** Things that characters can do to change the game state, such as moving to a

different location, eating food, or attacking something. Actions are triggered by user commands and are evaluated based on the current game state.

- **Blocks:** Obstacles that prevent characters from performing certain actions or accessing certain locations. For example, a locked door might block a character from entering a room until they find the key.
- **Commands:** Natural language input from the user that is parsed and mapped to corresponding actions in the game. The package includes a simple command parser that handles two-word commands, such as "go east" or "get key".

To create a game using the package, developers subclass the `Game` class and define the `is_won` method to specify the winning condition for the game. Locations, items, characters, and custom actions can be added to the game, and connections between locations can be established using the `add_connection` method. The package also includes a `Visualizer` class that generates a directed graph representation of the game world, making it easier to understand the layout and connections between locations.

This package can be used in conjunction with our DAGGER dataset and models. DAGGER can convert fiction into locations, items and characters in the game (actions and blocks are not yet automatically generated). The *text_adventure_games* package is open-source and available from <https://interactive-fiction-class.org>.

6 Related Work

Text-based games and interactive fiction have emerged as valuable testbeds for artificial intelligence research, offering controlled environments for studying natural language understanding, generation, and interaction. Jansen (2022) provides a systematic survey of Text Worlds, virtual environments rendered exclusively using textual descriptions. The author highlights the potential of Text Worlds as an alternative to higher-fidelity 3D environments, enabling the study of semantics, compositional inference, and other high-level tasks with rich action spaces while controlling for perceptual input. TextWorld (Côté et al., 2018) is a learning environment specifically designed for training reinforcement learning agents in text-based games.

Hausknecht et al. (2020) present a survey on the use of interactive fiction games in artificial intelligence research. The authors discuss common challenges and benchmarks in interactive fiction games and highlight their potential as a testbed for developing and evaluating AI techniques in natural language processing and understanding.

Other interactive fiction games, like Dungeons and Dragons (D&D), have been proposed as challenge problems for testing AI systems on various language-related capabilities. Callison-Burch et al. frame D&D specifically as a dialogue system challenge, where the tasks are to generate the next conversational turn in the game and predict the game state given the dialogue history. Zhu et al. (2023) introduce FIREBALL, a large dataset containing D&D gameplay data that adds underlying game state information.

AI Dungeon is an indie text adventure game that utilizes GPT-2 to generate and narrate customizable adventures. Hua (2020) explores AI Dungeon’s innovative gameplay mechanics and its potential as a model for future human-AI collaborative creative practices.

Yang et al. (2022) developed a Recursive Prompting and Revision (Re³) framework system for writing longer stories using LLMs. The Draft module in Re³ bears some similarities to our approach. They generate each next story passage by constructing a prompt that combines pieces of the high-level plan (setting, character descriptions, outline) and previously generated story (previous sections’ outlines, recent story summary, autoregressive context). This dynamic prompt construction allows the language model to generate continuations that are coherent with the existing story state while still following the overarching plan. In our work, we also use prompting techniques to inject story state information into the language model for generating continuations. The DAGGER dataset provides rich context in the form of location descriptions, character information, and item details, which can be incorporated into the prompts to guide the story generation process.

These works collectively emphasize the growing interest in using text-based games and interactive fiction as environments for AI research, particularly in the areas of natural language understanding, generation, and interaction. The development of datasets, tools, and benchmarks in this domain has the potential to advance the field and facilitate the creation of AI agents capable of engaging in rich,

natural language-based interactions.

7 Summary and Discussion

In this work, we introduced DAGGER, a synthetically generated dataset for creating text adventure games from fiction and generating prose from game states. DAGGER extends the LIGHT dataset by enhancing the original game locations with new characters and items generated using GPT-4. Additionally, each location is paired with a piece of short fiction, resulting in a dataset that contains a total of 259,582 words of fiction.

We presented a novel methodology for generating the DAGGER dataset, which leverages the capabilities of GPT-4 and a custom-built tool called DataDreamer. By using DataDreamer to manage the complex prompting workflows and generate high-quality synthetic training data, we were able to efficiently create a large-scale dataset that enables the mapping between stories and playable text adventure games.

To demonstrate the usefulness of the DAGGER dataset, we trained two baseline models: one that converts game states into fictional narrative descriptions and another that predicts game states from fiction. These models achieve promising results in terms of automatic evaluation metrics and provide a starting point for future research in this area.

We also introduced an open-source Python package called *text_adventure_games*, which facilitates the development and testing of text adventure games generated using the DAGGER dataset. This package provides a simple and intuitive framework for defining game elements and includes a game loop that handles user input and updates the game state accordingly.

The DAGGER dataset, baseline models, and the *text_adventure_games* package serve as valuable resources for researchers and developers exploring narrative generation and text-based game design in NLP. By providing these tools and data, we aim to enable the creation of more immersive and interactive text-based gaming experiences.

Future work could explore several directions, such as improving the performance of the baseline models through more advanced LLMs or training strategies, extending the DAGGER dataset to include a wider range of game genres and styles, and developing methods for automatically generating actions and blocks in text adventure games. Additionally, the DAGGER dataset could be used to

study other aspects of natural language understanding and generation, such as commonsense reasoning, creative writing, and interactive storytelling.

In conclusion, DAGGER represents a significant step towards bridging the gap between natural language and interactive game environments. By providing a large-scale dataset, baseline models, and a game engine, we hope to stimulate further research in this exciting area of NLP and AI.

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A Original Game State from LIGHT

Below is a location from the original LIGHT dataset (Urbanek et al., 2019), which was created via crowdsourcing.

```
1 {
2 "category": "Forest",
3 "location": {
4   "name": "Ant hill",
5   "description": "The ant hill is very large, over 5 feet high, and is wrapped
6     around the base of a pine tree. The ants are huge compared to normal ants,
7     and jut in and out of large holes in the ant hill. Bones of animals and even
8     people can be seen sticking out of the red dirt ant hill.",
9   "background": "These ants are the scourge of the kingdom. Every time an ant hill
10     is eradicated another pops up. These ants are very aggressive and hungry
11     and have even been known to take large cattle or baby elephants.",
12   "neighbors": {
13     "South": "Riverbed",
14   },
15   "items": {}, # None
16   "characters": {
17     "Ants": {
18       "name": "Ants",
19       "description": "team workers and are all very happy with their lives",
20       "persona": "I am an industrious insect living in a hive. I spend most of
21         my day searching for food to bring to my queen. I work with
22         thousands of other ants like myself to accomplish this goal. I am
23         very skilled at digging and can lift many times my own body weight."
24     },
25     "location": "Ant Hill",
26     "inventory": {
27       "Food": {
28         "name": "Food",
29         "description": "The rye bread appears very dry.",
30         "properties": {
31           "is_container": false,
32           "is_drink": false,
33           "is_food": true,
34           "is_gettable": true,
35           "is_surface": false,
36           "is_weapon": false,
37           "is_wearable": false
38         }
39       },
40       "other ants": {}, # Not defined in LIGHT
41       "crumbs": {} # Not defined in LIGHT
42     }
43   },
44   "Ant eater": {
45     "name": "Ant eater",
46     "description": "lonely and seldom seen, almost a legend",
47     "persona": "I am an ant eater. I live in the forest and the witch is
48       always trying to catch me. I like to eat the ants trapped in the
49       dead trees. I try to keep to myself.",
50     "location": "Ant Hill",
51     "inventory": {} # Empty
52   }
53 }
54 }
```

B Enhanced Game State in DAGGER

We derived our game states from the LIGHT dataset (Urbanek et al., 2019), keeping the name, description and background of each location, and then using GPT-4 to create new characters and items for each setting. We had GPT generate several new fields including goals for character (similar to the motivations in (Ammanabrolu et al., 2020)), examine text for items, and zero-shot predictions about each item’s properties (which govern how it can be used during the game).

```
1 {
2   "category": "Forest",
3   "location": {
4     "name": "Ant Hill",
5     "description": "The ant hill is very large, over 5 feet high, and is wrapped
6       around the base of a pine tree. The ants are huge compared to normal ants,
7       and jut in and out of large holes in the ant hill. Bones of animals and even
8       people can be seen sticking out of the red dirt ant hill.",
9     "background": "These ants are the scourge of the kingdom. Every time an ant hill
10      is eradicated another pops up. These ants are very aggressive and hungry
11      and have even been known to take large cattle or baby elephants.",
12     "connections": {
13       "south": "The Brush Den",
14       "west": "Forest Entrance"
15     },
16     "items": {
17       "Pine Cone": {
18         "name": "Pine Cone",
19         "description": "An unusually large, open pine cone.",
20         "examine_text": "It's coming from the tree the ant hill engulfs. Some of
21           the pine cone scales are reinforced with resin, so it is harder
22           than usual pine cones.",
23         "properties": {
24           "is_container": false,
25           "is_drink": false,
26           "is_food": false,
27           "is_gettable": true,
28           "is_surface": false,
29           "is_weapon": true,
30           "is_wearable": false
31         },
32         "location": "Ant Hill"
33       },
34       "Ant Carcass": {
35         "name": "Ant Carcass",
36         "description": "The lifeless physical remains of a giant ant.",
37         "examine_text": "It appears this ant has been cut cleanly in half,
38           probably by a skillful warrior. Its exoskeleton has tough, shiny
39           appearance and the giant mandibles still look lethal.",
40         "properties": {
41           "is_container": false,
42           "is_drink": false,
43           "is_food": false,
44           "is_gettable": true,
45           "is_surface": false,
46           "is_weapon": true,
47           "is_wearable": false
48         },
49         "location": "Ant Hill"
50       },
51       "Mutilated Bones": {
52         "name": "Mutilated Bones",
53         "description": "What seems to be the half-eaten remains of unfortunate
54           creatures.",
55         "examine_text": "It's hard to tell what creature these bones belonged to
56           . It seems like these might be from a large animal, the likes of
57           cattle or even an elephant.",
58         "properties": {
59           "is_container": false,
60           "is_drink": false,
61           "is_food": false,
```

```

50         "is_gettable": false,
51         "is_surface": false,
52         "is_weapon": false,
53         "is_wearable": false
54     },
55     "location": "Ant Hill"
56 },
57 "Loose Dirt": {
58     "name": "Loose Dirt",
59     "description": "A mound of the auburn mineral, piled up by the
60     procession of ants.",
61     "examine_text": "The soil is not just auburn, but when you look closely
62     it has a touch of glitter, probably due to minerals in the ground.
63     It might create a good distraction if thrown.",
64     "properties": {
65         "is_container": false,
66         "is_drink": false,
67         "is_food": false,
68         "is_gettable": true,
69         "is_surface": false,
70         "is_weapon": false,
71         "is_wearable": false
72     },
73     "location": "Ant Hill"
74 }
75 },
76 "characters": {
77     "Ant Queen": {
78         "name": "Ant Queen",
79         "description": "A monstrously-sized, segmented creature of reddish hue,
80         possessing intricate patterns of growth upon its frighteningly large
81         , bloated abdomen.",
82         "persona": "I am the queen, the heart, and the mind of this colony. All
83         ants act at my will and reproduce my offspring.",
84         "goal": "To ensure the survival and expansion of my colony.",
85         "location": "Ant Hill",
86         "inventory": {
87             "Royal Pheromone": {
88                 "name": "Royal Pheromone",
89                 "description": "It's a tiny, crystalized substance from the Ant
90                 Queen.",
91                 "examine_text": "On closer inspection, this pheromone is a tiny
92                 crystal that releases a strong, distinctive scent. It
93                 communicates the orders and presence of the Ant Queen to the
94                 entire colony.",
95                 "properties": {
96                     "is_container": false,
97                     "is_drink": false,
98                     "is_food": false,
99                     "is_gettable": true,
100                    "is_surface": false,
101                    "is_weapon": false,
102                    "is_wearable": false
103                }
104            }
105        },
106         "Decoy Egg": {
107             "name": "Decoy Egg",
108             "description": "An unfertilized egg laid by the Ant Queen
109             herself.",
110             "examine_text": "This unfertilized ant queen egg is round and
111             pearly white. Despite being a decoy, it looks almost
112             identical to a real ant queen egg, but it lacks the life
113             force of potential ant offspring.",
114             "properties": {
115                 "is_container": false,
116                 "is_drink": false,
117                 "is_food": false,
118                 "is_gettable": true,
119                 "is_surface": false,
120                 "is_weapon": false,

```

```

106         "is_wearable": false
107     }
108 }
109 }
110 },
111 "Sergeant Ant": {
112     "name": "Sergeant Ant",
113     "description": "Enormous and muscular compared to his peers, he dons
        unique battle scars, his mandibular jaws look deadly powerful and he
        moves with a purpose.",
114     "persona": "I am the first line of defense for my queen and the colony.
        I will go to any length to protect and serve them.",
115     "goal": "To protect the ant hill from any threats.",
116     "location": "Ant Hill",
117     "inventory": {
118         "Enemy Ant Head": {
119             "name": "Enemy Ant Head",
120             "description": "The severed head of a large enemy ant.",
121             "examine_text": "Not for the faint hearted, this is the
                decapitated head of an enemy ant. It's strikingly large with
                jagged mandibles and multiple, keenly observant eyes. There
                's a strangely fearsome quality to it, even in death.",
122             "properties": {
123                 "is_container": false,
124                 "is_drink": false,
125                 "is_food": false,
126                 "is_gettable": true,
127                 "is_surface": false,
128                 "is_weapon": false,
129                 "is_wearable": false
130             }
131         },
132         "Poison Gland": {
133             "name": "Poison Gland",
134             "description": "An organ harvested from a fallen enemy ant, full
                of potent venom.",
135             "examine_text": "The poison gland of an ant is small but deadly.
                Upon close inspection, the gland pulsates as if alive,
                filled with venom that was once used to paralyze or kill. It
                's an unholy shade of green, and it reeks of danger and
                death.",
136             "properties": {
137                 "is_container": false,
138                 "is_drink": false,
139                 "is_food": false,
140                 "is_gettable": true,
141                 "is_surface": false,
142                 "is_weapon": true,
143                 "is_wearable": false
144             }
145         }
146     }
147 },
148 "Worker Ant": {
149     "name": "Worker Ant",
150     "description": "Rivalling the size of a rat, this tireless creature is a
        mirror image of its countless siblings, its body dusted red with
        the soil from the ant hill.",
151     "persona": "My purpose is to dig, gather, and build. I maintain and
        expand our home, following the scent trails of my sisters.",
152     "goal": "To collect food and expand the ant hill.",
153     "location": "Ant Hill",
154     "inventory": {
155         "Leaf Piece": {
156             "name": "Leaf Piece",
157             "description": "A medium-sized green leaf piece ripped from a
                tree nearby",
158             "examine_text": "Upon closer inspection, the leaf piece is
                teeming with nutrients perfect for sustaining the ant colony
                . It's a tough, fibrous chunk of a larger leaf, neatly torn

```



```
159         along the veins as if by design.",
160         "properties": {
161             "is_container": false,
162             "is_drink": false,
163             "is_food": true,
164             "is_gettable": true,
165             "is_surface": false,
166             "is_weapon": false,
167             "is_wearable": false
168         }
169     },
170     "Grains of Sand": {
171         "name": "Grains of Sand",
172         "description": "Small, coarse grains of sand gathered from the
173             surrounding area",
174         "examine_text": "Looking closely, the grains are of different
175             sizes and shapes, each jagged edge catching the light. The
176             worker ant could carry many at once. They seem to be perfect
177             for securing the structure of the ant hill.",
178         "properties": {
179             "is_container": false,
180             "is_drink": false,
181             "is_food": false,
182             "is_gettable": true,
183             "is_surface": true,
184             "is_weapon": false,
185             "is_wearable": false
186         }
187     }
188 }
189 }
```

C Example Prompt

To generate fiction from the game state, we prompt GPT with the game state itself along with a detailed prompt that instructs it what kind of narrative to produce, and what things to highlight. GPT writes the prompt and then send it to itself, as part of our complex prompting workflow, managed by DataDreamer (Patel et al., 2024). Here is an example prompt for the Ant Hill location:

Goal: Given this data of a location write a scene in a novel that sets the location.

Detailed Instructions: This scene occurs in a later chapter when the characters have already been introduced:

Prompt: In a well-described third-person narrative, transport the reader into the heart of the Ant Hill, skillfully depicting the vast and buzzing superorganism. Provide a visually rich render of the ant hill which sits majestically at the base of a massive pine tree, touching upon the notable presence of animal and human bones surrounding it. Establish an atmosphere of untamed wilderness and dread but also fascinating beauty.

Seamlessly switch focus between the three main characters, portraying the distinct activities they're engrossed in. Illustrate the Worker Ant, soldiering dutifully in her pursuits, maintaining the ant hill or collecting resources. Remember to give the reader a sense of her indefatigable resolve and unity with her colony.

Switch to the Sergeant Ant, and craft a dialogue between him and the Ant Queen discussing upcoming threats from an enemy insect colony, reflecting his steadfast loyalty and commitment to the colony's defense. Paint the Ant Queen as the wise and commanding matriarch, radiating with pheromones and plans of a new breed of stronger ants. Remember to evoke the majestic aura that surrounds her.

Parallely, go deep into the subplot that deals with the intricate struggles of the Worker Ant. Probably an encounter with a perilous threat while procuring resources, showcasing the courage, tenacity, and collective power of the worker ants.

Finally, subtly hint at the Ant Queen's turmoil over her inevitable passing, introducing a sense of foreboding and tension in the story. Make sure the overall tone aligns with the High Fantasy/Adventure style- uplifting at times, while capturing a backdrop of impending battles and survival instincts.

Utilize the location data to add depth to the scene, detailing the specific items present in the location and how they contribute to the ongoing narrative.

D Example Fiction

For each location, GPT generates a fragment of story mimicking literary fiction. Here's the story that it generates for the Ant Hill:

The Ant Hill quivered under the relentless sun, sitting at the base of a towering pine tree like an ancient and fabled crypt. Forming large, complex tunnels and chambers, the hill was alive with activity. The red auburn dirt of their home riddled with the macabre mementos of mortality protruding from its mounds - bones of animals and even humans, inspiring awe and dread in equal measure. Despite being the scourge of the kingdom, from the hulking cattle to as grand as the baby elephants, an undeniable sense of savage magnificence hung in the air.

Front and center of this buzzing superorganism was the Worker Ant. Her size equivalent to that of a rat, berobed in the dusted red of the soil from the ant hill. With tireless diligence, she ventured out to forage, her path lit by the shimmering tracery of pheromone trails. Her mandibles held a medium-sized green leaf piece and grains of sand, resources that would nourish and fortify the colony's burgeoning hill. The colony always came first, its mandate threaded into every fibre of her being.

Away from the feverish activity, in the colony's inner sanctum, the Sergeant Ant stood vigil. His exoskeleton was a grim carapace of battle scars, speaking sagas of dangers faced and battles won. Adjacent to him, the Ant Queen, the matriarch of this teeming civilization, was an awe-inspiring sight. Her monstrously-large, bloated abdomen glistened in the dim light, intricate patterns of growth adorning her segmented body. Protocol and respect demanded his approach with the decapitated head of an enemy ant in his mandible, a rich source of pride radiating from his form.

"My queen," he began, his tone reflecting the steadfast loyalty he felt, "the enemy colonies prepare for another assault."

Keenly aware of the menace her subjects faced, the queen regarded the Sergeant Ant, who was her first line of defence. He felt the pulse of her pheromone messages - a mix of urgency and reassurance. "We shall meet them, Sergeant. Our breed must advance. It's time for our new progeny to safeguard us," she replied. A crackling energy pervaded the chamber as though the hill was thrumming with the pulse of a thousand hearts - the beat of survival.

Any conversation of the Ant Queen's brewing plans was disrupted when a cry echoed through the hilly corridors of the ant house. A Worker Ant lost her struggle with a predatory bird while procuring resources. Despite the everyday possibility of terror and death, the loss stung each ant - a collective pain.

In the arduous aftermath, an atmosphere of impending change was cast upon the ant hill. The Ant Queen, although resolute, could not entirely obscure her brooding turmoil. Her royal pheromones, usually markers of her royal authority were subtly tinged with a scent of vulnerability. The inevitability of her ageing and the precarious balance between life and demise sent a shiver down the collective consciousness of the colony.

However, amid this minor disquietude, the ant hill remained a beacon of unity and collective strength. The Worker Ant, steeled with duty and resolve, returned to her tasks - the loss adding to her resolve rather than diminishing it. The Sergeant Ant, her courage reinvigorated, pledged an unspoken vow to protect with all he had. The items and inhabitants of the great Ant Hill, from the large pine cone to the grains of sand, from the Ant Queen to the diligent workers, were each a testament to this legacy - the legacy of survival. The circle of life, of unity, and the inevitable change hovered around the ant hill in a silent, quintessential dance. The mystique and grandeur of Ant Hill were a testament to nature's undaunted spirit. There it stood - a cenotaph of relentless survival and collective ambition, chiseling a saga of life in the very heart of the wilderness.

E Example of Generated Fiction from Baseline Model

We show an example of fiction generated by our baseline model from a JSON game state in comparison to reference fiction generated by GPT-4 found in DAGGER.

Input JSON Game State:

```
1 {
2   "name": "Cloud Nine Bar",
3   "description": "A bar in the clouds. Lively atmosphere with good drinks and even better views.",
4   "background": "The bar was built as an escape from the doldrums of a working day. The bar is enjoyed by all citizens in
5     the city in the clouds.",
6   "connections": {
7     "west": "Grand Hall Of The City"
8   },
9   "items": {
10    "Cloud Cocktail": {
11      "name": "Cloud Cocktail",
12      "description": "An exquisite cocktail known for its distinctive sky-blue hue.",
13      "examine_text": "The cocktail has a tantalizing mix of colors with a cloud-like white foam on the top. You can see
14        small ice-cubes floating around giving it an appealing look. Its tempting fruity smell invades your senses
15        .",
16      "properties": {
17        "is_container": false,
18        "is_drink": true,
19        "is_food": false,
20        "is_gettable": true,
21        "is_surface": false,
22        "is_weapon": false,
23        "is_wearable": false
24      },
25      "location": "Cloud Nine Bar"
26    },
27    "Dreamy Sunset Ale": {
28      "name": "Dreamy Sunset Ale",
29      "description": "A special brew served only at the Cloud Nine Bar.",
30      "examine_text": "The ale has a deep, rich color reminiscent of the sunset, with a frothy head that forms a
31        whitetail of a cloud. The faint scent of the finest hops wafts as you lean closer.",
32      "properties": {
33        "is_container": false,
34        "is_drink": true,
35        "is_food": false,
36        "is_gettable": true,
37        "is_surface": false,
38        "is_weapon": false,
39        "is_wearable": false
40      },
41      "location": "Cloud Nine Bar"
42    },
43    "Stool": {
44      "name": "Stool",
45      "description": "A high stool for patrons of the bar.",
46      "examine_text": "Made from an ethereal white wood, the stool seems to gleam under the bar's soft light. The sturdy
47        legs and well-worn seat tell stories of countless patrons who've come and gone.",
48      "properties": {
49        "is_container": false,
50        "is_drink": false,
51        "is_food": false,
52        "is_gettable": false,
53        "is_surface": true,
54        "is_weapon": false,
55        "is_wearable": false
56      },
57      "location": "Cloud Nine Bar"
58    },
59    "Binoculars": {
60      "name": "Binoculars",
61      "description": "A pair of high-powered binoculars. Great for appreciating the view.",
62      "examine_text": "These heavy-duty binoculars allow for a detailed examination of the distant floating structures
63        and cloud formations. Its polished metallic surface shines with very minimal scratches, indicating they're
64        well cared for.",
65      "properties": {
66        "is_container": false,
67        "is_drink": false,
68        "is_food": false,
69        "is_gettable": true,
70        "is_surface": false,
71        "is_weapon": false,
72        "is_wearable": false
73      },
74      "location": "Cloud Nine Bar"
75    }
76  },
77  "characters": {
78    "Bart": {
79      "name": "Bart",
80      "description": "A tall, burly man with a neatly trimmed beard, dazzling smile, and cheerful eyes. He wears a
81        stained apron and a bartender's cap.",
82      "persona": "I'm the friendly bartender, always here to serve your favorite drinks and interesting stories about
83        this city.",
84      "goal": "Keep serving good drinks and creating a comforting environment in the bar.",
85      "location": "Cloud Nine Bar",
86      "inventory": {
87        "bottle of whiskey": {
88          "name": "Bottle of Whiskey",
89          "description": "An expensive bottle of premium Sky Scotch.",
```



```

81         "examine_text": "The bottle is made of elegant crystal-clear glass with a cork at the top, it is filled
            with an amber coloured liquid that radiates a warm light. The label reads 'Sky Scotch, aged 20 years
            ',",
82     "properties": {
83         "is_container": true,
84         "is_drink": true,
85         "is_food": false,
86         "is_gettable": true,
87         "is_surface": false,
88         "is_weapon": false,
89         "is_wearable": false
90     }
91 },
92 "bar_towel": {
93     "name": "Bar Towel",
94     "description": "A well-used white towel.",
95     "examine_text": "The towel does not seem to be much special at a first glance. However, you notice a
            number of patches in various colors representing different antics, suggesting that it has been
            around for more than a few spills and tales.",
96     "properties": {
97         "is_container": false,
98         "is_drink": false,
99         "is_food": false,
100        "is_gettable": true,
101        "is_surface": false,
102        "is_weapon": false,
103        "is_wearable": true
104    }
105 },
106 "corkscrew": {
107     "name": "Corkscrew",
108     "description": "A sturdy, metal corkscrew.",
109     "examine_text": "The corkscrew is made of polished, sturdy metal with an ornate grip and a sharp point. It
            's obviously well taken care of, shining in the cloudied light.",
110     "properties": {
111         "is_container": false,
112         "is_drink": false,
113         "is_food": false,
114         "is_gettable": true,
115         "is_surface": false,
116         "is_weapon": true,
117         "is_wearable": false
118     }
119 }
120 },
121 },
122 "Jillian": {
123     "name": "Jillian",
124     "description": "A woman with long auburn hair, sparkling hazel eyes, dressed stunningly in a bright orange
            cocktail dress. She has a welcoming aura.",
125     "persona": "I'm a regular at this bar. I enjoy the music, the atmosphere, and meeting new people.",
126     "goal": "Find interesting conversations and enjoy the beautiful view.",
127     "location": "Cloud Nine Bar",
128     "inventory": {
129         "gold_purse": {
130             "name": "Gold Purse",
131             "description": "A small, shiny gold purse.",
132             "examine_text": "Upon closer inspection, the purse appears to be made of fine, gold threaded fabric. It's
            not too large, just big enough to hold essentials like money, lipstick and a phone.",
133             "properties": {
134                 "is_container": true,
135                 "is_drink": false,
136                 "is_food": false,
137                 "is_gettable": true,
138                 "is_surface": false,
139                 "is_weapon": false,
140                 "is_wearable": true
141             }
142         },
143         "lipstick": {
144             "name": "Lipstick",
145             "description": "A bold red lipstick.",
146             "examine_text": "The lipstick is in a gold tube that matches Jillian's purse. The colour is a deep,
            vibrant red \u2013 no doubt it compliments Jillian's bold personality.",
147             "properties": {
148                 "is_container": false,
149                 "is_drink": false,
150                 "is_food": false,
151                 "is_gettable": true,
152                 "is_surface": false,
153                 "is_weapon": false,
154                 "is_wearable": true
155             }
156         },
157         "martini_glass": {
158             "name": "Martini Glass",
159             "description": "A glass martini with a twist of lemon.",
160             "examine_text": "The martini is perfectly mixed, the clear liquid shining under the bar lights. A twist of
            lemon floats on top, adding a citrusy aroma to it.",
161             "properties": {
162                 "is_container": true,
163                 "is_drink": true,
164                 "is_food": false,
165                 "is_gettable": true,
166                 "is_surface": false,
167                 "is_weapon": false,
168                 "is_wearable": false
169             }
170         }
171     }
172 }

```

```

172     },
173     "Rigby": {
174         "name": "Rigby",
175         "description": "A middle-aged man with gruff features, uncombed brown hair, and gleaming spectacles. He usually
176             sits in the corner, scribbling something on his old notebook.",
177         "persona": "I'm just a humble poet, seeking inspiration in the rhythm of this bar and observing the clouds' dance
178             .",
179         "goal": "Finish my poem on the beauty of the city in the clouds.",
180         "location": "Cloud Nine Bar",
181         "inventory": {
182             "tattered_notebook": {
183                 "name": "Tattered Notebook",
184                 "description": "An old, worn-out notebook",
185                 "examine_text": "Upon closer inspection, the notebook has various scribbles, sketches, and a collection of
186                     half-finished poems. It has seen enough years pass by and bear the stains of time and spills of ale
187                     .",
188                 "properties": {
189                     "is_container": false,
190                     "is_drink": false,
191                     "is_food": false,
192                     "is_gettable": true,
193                     "is_surface": true,
194                     "is_weapon": false,
195                     "is_wearable": false
196                 }
197             },
198             "quill_pen": {
199                 "name": "Quill Pen",
200                 "description": "A classic quill pen",
201                 "examine_text": "A look at the quill pen reveals careful craftsmanship, though it's a little worn from
202                     constant use. There's beauty in its simplicity and a sense of antiquity.",
203                 "properties": {
204                     "is_container": false,
205                     "is_drink": false,
206                     "is_food": false,
207                     "is_gettable": true,
208                     "is_surface": false,
209                     "is_weapon": false,
210                     "is_wearable": false
211                 }
212             }
213         },
214         "pint_of_ale": {
215             "name": "Pint of Ale",
216             "description": "A frothy pint of the finest cloud brew",
217             "examine_text": "There's a pleasing golden hue to the ale. Light refracts through it, casting a warm glow.
218                 The foam on top is frothy and inviting, promising a taste of the sky itself.",
219             "properties": {
220                 "is_container": true,
221                 "is_drink": true,
222                 "is_food": false,
223                 "is_gettable": true,
224                 "is_surface": false,
225                 "is_weapon": false,
226                 "is_wearable": false
227             }
228         }
229     }
230 }

```

Generated Fiction:

As the afternoon sun dipped below the horizon, the Cloud Nine Bar was alive with life. The air was thick with the intoxicating scent of the Dreamy Sunset Ale, the tantalizing Cloud Cocktail, and the intoxicating aroma of the fruity, freshly squeezed juice of the Sweet Peach Punch. The bar was a haven for all, a sanctuary where one could forget their troubles and revel in the delights of the city in the clouds.

In the heart of the bar, Bart, a burly man with a neatly trimmed beard, was busy pouring a Cloud Cocktail for a young couple. His hand moved with a fluid grace, the glass held aloft with a practiced ease. The Cloud Cocktail, a concoction of Sky Scotch, aged 20 years, and a touch of lemon, was a delight to the palate. The flavor was subtle yet satisfying, a perfect balance between the smoothness of the whiskey and the tartness of the lemon. Bart's eyes danced with pleasure as he watched the couple savor the drink, their eyes reflecting the glow of the setting sun.

Just then, a voice broke the harmony of the evening. It was Jillian, a woman with long auburn hair, sparkling hazel eyes, and a welcoming aura. Her presence was a breath of fresh air, her laughter echoing off the walls. She wore an orange dress that caught the sunlight, making her stand out against the backdrop of the clouds. Her hands, deftly moving across the bar, were a testament to her love for the city. Her gold purse lay open, its contents a testament to her endless search for intriguing conversations and new faces.

"Ah, Bart," she greeted, her voice carrying the sweetness of the Dreamy Sunset Ale. "You know, I've been thinking about that poem I wrote about the city in the clouds."

Bart looked up from his work, his eyes sparkling with anticipation. "Yes, Jillian, I do indeed. It's been a while since I've sat down and really think about the city. What do you think?"

As the conversation continued, the Cloud Nine Bar seemed to hum with the energy of the city within its clouds. The air was charged with anticipation, the whiskey and the ale flowing freely, the conversation lively, and the Cloud Cocktail and Dreamy Sunset Ale a constant companion. The bar was a melting pot of dreams, aspirations, and the promise of a city in the clouds.

Reference Fiction:

Under the bright glimmers of cloud-kissed lanterns, the Cloud Nine Bar buzzed with life and intrigue, a cosmos away from the monotony of mundane existences. Anchored in the clouds' divine embrace, it was an oasis of elation among the celestial bodies. Bart was its gatekeeper, a sturdy bear of a man, always ready to mix solace into every glass.

Tonight, just like any other, the glossy countertop was his canvas. He stood behind it, handling an exquisite pair of ales with the concentration of a virtuoso orchestrating a symphony. The way the Dreamy Sunset Ale swirled in the glasses was a melody itself, its deep amber hues glinting against the stained glass windows, painting their own vibrant symphony of colors. The luminescence resembled a bottled sunset, a touch of the heavens, ready to ebb away the earthbound worries of its patrons.

On a high stool, Jillian sat in her usual vibrant attire, sipping on a Cloud Cocktail that was as lively and spirited as her. She was a constellation of joy itself, pulling Rigby into her solar dance. High up in this magical bar, their worlds, once separate, had engaged in a spontaneous duet.

Rigby was often a lone star in the corner, an orbit of creative constellations held within his tattered notebook. But tonight, as he discussed his poems, there was a flicker in his cautious demeanor, beguiled by Jillian's sunbeam presence. His countenance shone brighter than his usual audience of one - a clear pint of ale that usually sat aloof on his table. From behind the counter, Bart noted Rigby's newfound enthusiasm resembling the gleam that danced on the poet's pint when the right angle of light blessed it.

Tinkling laughter fluttered from the pair, merging with the low hum of soft music and cordial chatter. Bart poured liquor with an artisan's precision while his eyes soaked in these personal vignettes etching a complicated pattern into the bar's lively tapestry. Each brimming glass was an unspoken agreement to partake in revealing stories of personal sagas.

A pair of swinging doors to the west hinted at the Grand Hall of the City, accentuating the bar's pivotal role as a refuge from the grandeur. The high-powered binoculars by the window narrated tales of distant floating structures, a quiet observer, a silent confidante to the countless patrons that sought solace within the bar's clouded embrace.

As Bart glanced at the on-going exchange between Jillian and Rigby, he was reminded of why he had chosen this profession. It was not just about pouring drinks or the razzle-dazzle of crafting magical cocktails. It was the customers, their stories, their fleeting moments together - experiences bottled within the memory of every glass he cleaned.

Tonight, amid the expanse of cerulean and twinkling city lights, within the bustling ambiance of the Cloud Nine Bar, as contrasting personalities meshed over a shared love for creativity, Bart couldn't help but feel lucky to be a part of it all - a bartender, a listener, a silent thread binding everyone together in an ever-changing tapestry of celestial lives.

F Example of a Predicted JSON Game State from Baseline Model

We show an example JSON game state predicted by our baseline model from a literary scene in comparison to reference JSON game state found in DAGGER.

Input Fiction:

In the enigmatic heart of the magical realm resided the Royal Tent - a sanctuary that was as warm and inviting as it was unnerving. Its walls of gossamer silk shimmered with soft light with each caress of the omnipresent, arcane breeze. The ceiling disappeared into the high heavens, lost amidst a sea of ethereal glow. Opulent rugs adorned the ground beneath, their colors a testament to the Art itself - imbued with hues which no mortal eye could conceive. The tent, a marvel of magic, a testament to the grandeur of the Alabaster Elves, stood silently, whispering its presence to the ephemeral fabric of the realm.

Hovering above a brazier, a golden teapot spouted vapors that filled the regal surroundings with the spiced aroma of cinnamon, serving impromptu odes to the eons-old culture and tradition of the elves. A soft, comforting light came from a glowing stone standing by the tent wall, seemingly crafted from a pearl that once belonged to a mythical sea creature. The royal bed, sculpted from magically infused cloth, nestled organically into a corner. It was as if the tent, the bed, the enchanted rugs, everything was part of an organic whole that grew together, presenting a harmonious tableau of royalty.

Within this extraordinary haven, Queen Ysabel, her countenance reflecting an ageless wisdom, was engrossed in a conversation with her son, Prince Sylvan, and the sage Lady Estel. The queen, her silver hair flowing like a river under starlight, spoke with a gentle authority, her luminous eyes alight with the challenges that lay ahead.

“An anomaly looms over us, Sylvan,” the queen stated, her voice a melodious hymn. “One that challenges the very bedrocks of our magical realm.”

The prince, his spirit reflecting the verdant vibrancy of nature, nodded. “I understand, mother. But isn’t it exactly these anomalies that make our realm so alluring? Such potential for discovery and growth.”

“Not when it’s at the risk of existence,” interjected Lady Estel, her deep-set eyes sparkling with the fire of wisdom. “Yet, Sylvan’s curiosity and enthusiasm are rightfully placed, Ysabel. We’ve always learned and grown from anomalies. The key is to harness that power.”

Queen Ysabel surveyed the meeting, her gaze lingering on each exquisite artifact around them - the golden teapot, the glowing stone, the vibrant rug - each a tribute to the intricate bond her people shared with the realm.

“You’re right, Estel. Perhaps, it’s time to bend the Art to our will, to face this anomaly head-on,” said the queen, a newfound determination coloring her words. She glanced at the teapot, the vapors dancing, swirling around, a small testament to what they – the royal family of the Alabaster Elves - were capable of.

As the royal trio converged their minds towards the imminent threat, the Royal Tent hummed with potent energy, the tension even affecting the ambient glow. The discussion, a fusion of wisdom, curiosity, and anticipation, echoed in the air, painting the ancient artifacts with a sense of urgency. The ethereal ambiance melded seamlessly with the brewing intensity, casting an awe-filled anticipation, reflecting the vibrant resilience of the Alabaster Elves.

Predicted JSON Game State:

```
{
  "name": "Royal Tent",
  "description": "A sanctuary within the magical realm, the Royal Tent stands as a testament to the grandeur of the Alabaster Elves. Its walls are made of gossamer silk, adorned with opulent rugs, and its ceiling is lost amidst a sea of ethereal glow. The tent is a marvel of magic, housing a golden teapot and a glowing stone standing by the tent wall.",
  "connections": {
    "west": "Tent Of The King",
    "north": "The Enchanted Forest"
  },
  "items": {
    "Golden Teapot": {
      "name": "Golden Teapot",
      "description": "A golden teapot spouts vapors that fill the room with the spiced aroma of cinnamon.",
      "examine_text": "The teapot is made of gold and has a beautifully designed handle. The inside is filled with a rich, dark liquid that smells delicious.",
      "properties": {
        "is_container": true,
        "is_drink": false,
        "is_food": false,
        "is_gettable": true,
        "is_surface": false,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "Royal Tent"
    },
    "Glowing Stone": {
      "name": "Glowing Stone",
      "description": "A stone standing by the tent wall, seemingly crafted from a pearl that once belonged to a mythical sea creature.",
      "examine_text": "The stone is smooth and polished, reflecting the light from every angle. It seems to be made of pure gold, but there's something else about it that makes you feel uneasy.",
      "properties": {
        "is_container": false,
        "is_drink": false,
        "is_food": false,
        "is_gettable": true,
        "is_surface": false,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "Royal Tent"
    },
    "Vibrant Rug": {
      "name": "Vibrant Rug",
      "description": "A rug adorned with hues that no mortal eye could conceive, imbued with hues that no mortal eye could conceive.",
      "examine_text": "The rug is woven from a variety of different colors, creating a mesmerizing pattern. It's large enough to cover the entire floor of the tent.",
      "properties": {
        "is_container": false,
        "is_drink": false,
        "is_food": false,
        "is_gettable": true,
        "is_surface": true,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "Royal Tent"
    }
  }
}
```

Reference JSON Game State:

```
{
  "name": "The Royal Tent",
  "description": "The Royal Tent is a sanctuary that shimmers with a soft light, with walls made of gossamer silk. The ceiling disappears into the high heavens, and the ground is adorned with opulent rugs of unimaginable colors. A golden teapot hovers above a brazier, filling the tent with the aroma of spiced cinnamon. A glowing stone, seemingly crafted from a large pearl, provides a soft, comforting light. The royal bed, made from magically infused cloth, fits organically into a corner of the tent.",
  "connections": {
    "west": "Elf'S Room"
  },
  "items": {
    "Golden Teapot": {
      "name": "Golden Teapot",
      "description": "A golden teapot that hovers above a brazier, filling the tent with the aroma of spiced cinnamon.",
      "examine_text": "The golden teapot seems to float above a brazier, releasing aromatic vapors that smell of cinnamon and spices.",
      "properties": {
        "is_container": true,
        "is_drink": true,
        "is_food": false,
        "is_gettable": false,
        "is_surface": false,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "The Royal Tent"
    },
    "Glowing Stone": {
      "name": "Glowing Stone",
      "description": "A soft glowing stone by the tent wall, seemingly crafted from a large pearl.",
      "examine_text": "The glowing stone resembles a large flagstone crafted from a giant pearl. It radiates a soft, comforting light.",
      "properties": {
        "is_container": false,
        "is_drink": false,
        "is_food": false,
        "is_gettable": true,
        "is_surface": false,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "The Royal Tent"
    },
    "Royal Bed": {
      "name": "Royal Bed",
      "description": "A bed made of magically infused cloth that fits organically into a corner of the tent.",
      "examine_text": "The bed is made from magically imbued cloth that is incredibly soft and warm. It seems to have grown organically from the tent walls.",
      "properties": {
        "is_container": false,
        "is_drink": false,
        "is_food": false,
        "is_gettable": false,
        "is_surface": true,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "The Royal Tent"
    },
    "Vibrant Rug": {
      "name": "Vibrant Rug",
      "description": "An opulent rug of unimaginable colors adorns the ground of the tent.",
      "examine_text": "The rug's design is a swirl of vibrant colors. The texture is extremely soft, and the material is unlike anything you've ever seen.",
      "properties": {
        "is_container": false,
        "is_drink": false,
        "is_food": false,
        "is_gettable": false,
        "is_surface": true,
        "is_weapon": false,
        "is_wearable": false
      },
      "location": "The Royal Tent"
    }
  }
}
```

```

"characters": {
  "Queen Ysabel": {
    "name": "Queen Ysabel",
    "description": "A luminous woman with silver hair, she is the queen of the Alabaster Elves. Her luminous eyes reflect the challenges that lie ahead.",
    "goal": "To protect her people and their magical realm from any threats.",
    "location": "Royal Tent",
    "inventory": {}
  },
  "Prince Sylvan": {
    "name": "Prince Sylvan",
    "description": "A young man with a kind smile and bright eyes, he is the prince of the Alabaster Elves. His spirit reflects the verdant vibrancy of nature.",
    "goal": "To explore the world and learn more about his people.",
    "location": "Royal Tent",
    "inventory": {}
  },
  "Lady Estel": {
    "name": "Lady Estel",
    "description": "A wise woman with deep-set eyes sparkling with wisdom, she is the queen's adviser. She believes in the power of curiosity and anticipation.",
    "goal": "To guide the queen and her family through the challenges ahead.",
    "location": "Royal Tent",
    "inventory": {}
  }
}
}

```

```

"characters": {
  "Queen Ysabel": {
    "name": "Queen Ysabel",
    "description": "Queen Ysabel is an ageless figure with silver hair and luminous eyes. She speaks with a gentle authority.",
    "persona": "Queen Ysabel is the guiding force of her people, tasked with facing the challenges that threaten their magical realm.",
    "goal": "Her goal is to harness the power of the magical realm to face the looming anomaly.",
    "location": "The Royal Tent",
    "inventory": {}
  },
  "Prince Sylvan": {
    "name": "Prince Sylvan",
    "description": "Prince Sylvan is a vibrant figure, his spirit reflecting the verdant vibrancy of nature.",
    "persona": "Prince Sylvan is curious and enthusiastic, eager to learn and grow from the anomalies of their realm.",
    "goal": "His goal is to explore the realm and use its secrets to rule wisely when his time comes.",
    "location": "The Royal Tent",
    "inventory": {}
  },
  "Lady Estel": {
    "name": "Lady Estel",
    "description": "Lady Estel is a wise figure, her deep-set eyes sparkling with the fire of wisdom.",
    "persona": "Lady Estel is a sage and mage, believing in the intricate web of magic that connects all lives and destinies.",
    "goal": "Her goal is to master the mysteries of the realm's magic, preserving their affinity and balance with it.",
    "location": "The Royal Tent",
    "inventory": {}
  }
}
}
}

```