

An Analysis of Nothing

Chandler Ault, Yamina Katariya, Yash Manne, Aditi Shrivastava



Background and Use Case

Project : Web application/Dashboard

- Explore and query dialogue snippets
- Recommend episodes
- Interactive visualization of character appearances, ratings, dialogue, etc.

Use Case: Descriptive Analytic Visualization

- User selects episode of interest
- Website returns dashboard of descriptive analytics
- User filters or toggles fields of interest

Python: Simple web app development that supports interactive visualizations



Python Packages



Purpose:

- Create custom web apps for ML and data science
- Focus is on quick development

Authors:

Snowflake



Purpose:

- Built on Plotly.js, React.js, and Flask
- Create and customize ML and data science web apps with UI elements

Authors:

Plotly



Pros

1. Almost entirely in Python
2. Small learning curve + rapid development
3. Fully open-source
4. Supports all main Python plotting libraries
5. Can be deployed on '**Streamlit Sharing**' platform + other options for free

Cons

1. Runs slower with larger datasets
 - a. Entire source code is re-run
2. Limited control of application layout
3. Works directly with script files - **not** notebooks



Pros

1. Huge design flexibility
 - a. Attributed to HTML and CSS code
2. Can create plots in other languages (R, Julia)
3. Scalable for larger datasets

Cons

1. Requires some knowledge of HTML, Javascript, and CSS
2. Large learning curve
3. Works directly with script files - **not** notebooks
4. Pushes users to use plotly for visualizations



1. For project timeline – simplicity and faster development is preferred
2. Primarily uses Python
 - a. Large selection of visualization/plotting tools
3. Easy integration of ML episode prediction Python scripts

Remaining Concerns



Concerns:

- Speed
 - Large dialogue dataset
 - Search /query of dialogue might be slow

Potential Workarounds:

- Perform operations on subsets of the data

Watch out for:

- Aesthetic/customization of application – look into HTML and CSS

Package Demo

An Analysis of Nothing

Search Functionality

Search episodes by keywords, concepts, or topics with the search bar below. Alternatively, choose a couple of your favorite episodes and we will use our proprietary algorithm to suggest some more episodes to watch.

Search Episodes

e.g. Episodes with mean soup guy

Title	Description	Season	Episode
49 The Contest	George's mother throws her back out when she falls down after catching George perk	4	
42 The Opposite	George decides to turn his life around by doing the exact opposite of what he would s	5	
110 The Soup Nazi	A soup stand owner obsesses about his customers' ordering procedure, but his soup	7	
59 The Outing	A prank by Elaine leads a newspaper journalist to think that Jerry and George are gay	4	
79 The Marine Biologist	George starts dating a college friend who, thanks to Jerry, thinks George is now a mas	5	

Similar Episodes

Choose an option

Analysis Functionality

Select episodes and see the breakdown of their sentiments by episode as well as the breakdown for each character's dialogue and their sentiments.

Episode Analysis

Choose an option



Streamlit

dreamweaver2k-streamlit-temp-streamlit-app-xwerfd.streamlit.app

Share ☆ ☰

Stop sharing

Manage app