

Modern Interface Design for Film Search Engine

User Document

Team EndFrame

Nadeem Nasimi

Elliot Radsliff

Anmol Singh

Devon Wasson

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Our project revolved around designing a user interface for the already existing database for the film search engine. Additionally, a website already existed for interacting with the database, but the existing website was more a proof of concept rather than the final design. Our team was tasked with coming up with a more intuitive user interface which allows researchers to navigate the website and conduct their research in a timely manner. Our first major task was to redesign the homepage. Next, we focused on reorganizing the results page in a way that allowed researchers to get a 'whole picture' view. Finally, we remade the context page to allow more features and usability to our potential users

The homepage was redone to focus entirely on the two main features of the website. By stripping away most of the text and hiding the options behind the two main buttons, we were able to make it clear and obvious to users exactly what their options were. Users can then click on a search option and enter in more relevant details from there. Additionally, the home page contains relevant links in an organized and visually pleasing location. Limiting the number of links and grouping them together ensured the user was not confused by the material on the page but could still find that information if they decided to look for it.

The results page was redesigned as well to allow users to filter through their results much more quickly. Besides adding in the features such as the ability to dynamically filter out genres and sort by year, title, and number of hits, users can also visually filter their searches much more quickly. Before, users had to scroll to see all of the images returned and could see only one full image at a time. Now, users are presented with a higher level view of their results. Smaller thumbnails allow more images to be seen at once. These images are grouped together by film which also allows users to quickly navigate to films which are relevant to their search. Also, seeing all of these images at once gives the user the ability to see patterns and make interesting connections between films. Another improvement we made is the addition of the metadata drawer. This panel contains metadata relevant to a screenshot when a user hovers over any screenshot. This gives "at a glance" information to the user without requiring them to click the image and load the context page to learn more.

The final aspect of our improvements involves the changes to the context page. The context page allows users to see images before and after the image they clicked, so they can get some context to the image. However, the context page before only displayed 10 images before and after. Also, the context page still showed only one image at a time instead of multiple images. The new context page shows three images at a time, one on either side of the image in focus. The user can use navigate through by clicking on arrows to scroll through images. Additionally, there is a timeline at the bottom of the page which shows users the location of all of their hits from their search graphically in the film. This is another example of how the redesigned site can allow for faster research. Users can quickly identify clusters of hits in a film and narrow the scope of their research to one specific area. These markers on the timeline can also be hovered over to see a preview of the image, and clicked upon to navigate the in-view context image to the clicked on image.

These changes are the main features of our design and cover most of the user stories our team completed. Below are the instructions for a team to start working on the project. They can set up their development environment, compile the code, and view it on a local server with the instructions that follow.

These instructions are written for UNIX machines (ie MacOS and Linux). These instructions can still be followed for Windows, but some commands may differ.

System Requirements

Python: the language most of the backend code is written in. It can be installed from [here](#).

Pip: a python package manager. This is used to install all the backend dependencies. It is typically comes bundled with Python, or can be installed from [here](#).

Node: a JavaScript runtime. Bundled with Node is npm (node package manager), which is used to install the JavaScript dependencies. It can be installed from [here](#).

Installation Instructions

These steps only need to be followed once to set up the development environment.

1. Install all required software listed above by following their respective installation guides.
2. Clone the repository from GitLab: `git clone git@gitlab.bucknell.edu:jde012/cell-phone-cinema-project.git`
3. Enter the source folder and install the python requirements: `cd src && pip install -r requirements.txt`
4. Enter the JavaScript folder and install the node requirements: `cd static/js && npm install`

Run Instructions

These steps need to be followed before each development session.

1. Open a terminal window and enter the src/ directory
2. Run `python main.py`
3. Open a second terminal window and enter the src/static/js directory
4. Run `npm start` and wait for the JavaScript file to generate
5. Go to localhost:8080 in your web browser

Web Development Tips

- Use Google Chrome and its debugging tools
- Install [React Developer Tools](#) to debug issues with React
- Install [Redux DevTools](#) to debug issues with Redux
- If JavaScript files aren't updating in the browser after modifying the code locally:
 - Make sure that Chrome isn't caching the old JavaScript file (disable cache is checked in the network tab of the developer tools)
 - Make sure `npm start` is running (steps 3-4 in Run instructions)

Adding Dependencies

Any time a new Python dependency is installed using Pip, it should also be added to requirements.txt. Similarly, any time a new JavaScript dependency installed using npm, it should also be added to package.json.