Project Proposal

Team Name: SaintsFC

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The aim of my project is to create a website that enables you to search through multiple search engines at once. The point of this is to compare the results of the different search engines. Even though most top search engines most likely use similar information retrieval algorithms, it is likely that they are different. Take Google for example, a lot of their algorithm is based on open source software, but there is also a significant amount of proprietary software behind it as well. Because of this fact, it is not possible to compare the code of each search engine directly, so it is therefore more useful to compare the results of these search engines. In any case, as text retrieval is an empirically defined field, it is likely to be better to compare results regardless of whether or not we could see the source code.

My project's goals would be twofold: One is to allow for the comparison of these search engines for purposes of determining the most effective one, and two is for users to be able to quickly sift through the best results of the top search engines to gather information more effectively. Most of the project will be centered around the user experience, as fulfilling those goals will lead to better experience for the more scientifically inclined individual as well.

One thing that I found interesting is that this had not already been done exactly. SearchAll.net is close to what I want, but it still does not allow for easy comparison of search engines, instead it opens a new tab, and also has a bizarre fascination with using voice to search, which makes me think it may not be a trustworthy site. This website https://www.guidingtech.com/58654/multiple-search-engines-web/ lays out ways to search through multiple search engines but they either do not work or cost money (and possibly also do not work), so I think it is a worthwhile endeavor to have this functionality.

The main algorithm in play on my website will be interpreting user queries and translating them into the queries that each search engine will be able to understand. I can use the url of each search engine to inject the user query, but it will need to be translated to each of the exact format that the search engines use. I do not expect this to be particularly difficult, but it could run into issues on the more advanced queries, as some preprocessing is done even before the query is sent to the server. I will likely use iframes to display the different search engines.

The approach will be to shown to work by displaying the website. It should be very self evident that the website works or it doesn't. To do this, the website will be created using html, CSS, and Javascript. I do not anticipate needing a front end framework for this site, or any backend work.

This project should take at least 20 hours (since I am alone). I foresee the workload being as such: 8-10 hours on website setup, 3-4 hours on dynamic selection of search engines, 3-4 hours on interpreting user queries and posting them to each search engine, 2 hours on more advanced queries, 1 hour on hosting (anticipate using Github pages), 2 hours on creating demo

or anything else required for the class generally, 2 hours testing, and a blanket 5 hours for any debugging or major issues that may arise.