Website Design Ranker

Using Machine Learning

Adhyaksh Guhan - 7 , Anet Eliza Johny - 23 , Dharwish Raj - 47 ,
Joel J Padayattil - 60

Department of Computer Science and Engineering
FISAT

21 NOVEMBER 2019

Problem Statement

- Our project is aimed at ranking websites in terms of its design which is evaluated baised on certain parameters.
- Since a perfect model for website ranking is not in practice, this follows ranking according to submissions by critics.
- Our main problem is to evaluate website designs using an algorithm.As there was no algorithms or methods existing to rank website design.

Related Works

Google introduced Page Layout Algorithm to analyze website readability.[1] It looks for the layout of the web page and the amount of content we see in the page once we click on a result.[1] It focuses to reduce the difficulty of users to find the actual content.[1] The websites which does not have a lot of visible content above-the-fold and dedicates a large fraction (above a normal degree) to ads, will be affected.[1]

Proposed System

- Website Design Ranker will rank set of input websites based on certain parameters.
- The parameters we are focussing on are color and grid .
- Then we move on for public review.
- This will be helpful to finding the best website among list of websites.
- We can compare our website design with other competing websites.
- We can see how a website's design may improve in an area.

Explanation

- It is an objective analysis of website designs by ranking them based on a parameter.
- The website's CSS file is scrapped via a web scrapper and then read through.
- The file is then parsed to find hex codes based on a regular expression.
- Once the codes are found, they are counted and printed using a variable.

Methodology used

- Using the basis of colour theory, we count the number of colours to determine the ranking of the website.
- Too few colours, then the website is extremely simple and too boring.
- Too many colours, then the website is over-designed and busy.

Algorithm

1. Start
2. Using a website scraper to accept the various website addresses
3. Scraping through the source code of each website via CSS files
4. Find the hex codes of all elements of the website and count them with a count variable
5. If count $==$ 0

(4.1) Give mark as 0

6. else if count $>$ 5

(5.1) Give mark as 0

7. else if count $<=$ 5

(6.1) Give mark as 1

8. Stop

Current Status

- The website for public ranking of website designs is 90 percent complete.
- Main colour code segment is working and needs to be unified under one file.

Project Completion Time

- 22nd November, 2019

Experimental result

- An example 'style.css' from a website template was downloaded and parsed through to test the colour code program. The number of colour codes were found and printed.
- A number of websites' front page's screenshots were taken using the website screenshot program.

Social and ethical relevance

- Eliminates subjectivity and unfair competitions based on peoples' biases.
- Shows how to improve user experience of a website by showing the problems of the website.

Conclusion

- Here we can see the logical differences in the approaches that our algorithm takes versus any existing methods.
- Our method relies on an objective and automated method that is consistent in nature as opposed to the subjective methods of the existing methods.