Media Tracking Platform to Tackle Online Piracy(MeRit)

MeRiT.

by

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Media Tracking Platform to Tackle Online Piracy(MeRit)

A Distributed Ledger System maintaining and monitoring the information on the copyrighted content provided by the legal owners. Such copyrighted content that could be accessed by the crawler to identify same or similar content on unauthorized websites. The crawler will index the URL and IP address of the platform hosting the content illegally. The system notifies the concerned owner of the copyright infringment, who verifies whether the content belongs to them.

How this works:

MeRiT combines web crawlers, deep web crawlers, distributed ledger technology and machine learning to address the issue on media piracy. The crawler searches for similar content or link to the content whose information has been stored on blockchain. The crawler indexes the **information on the** system. This is sent to the copyright content owner who then sends it to the content owner who can take it to the agency responsible for taking down the copyrighted content.

Prototyping:

The main page (home page) has a search option. This search is free for users not logged in. You can create an account which gives you more privileges . We can also see a login/signup page when you can login and if you have an account or can create one. Below the search option, we can see surface web crawl, dark web crawl and social media crawl.

Next the Pricing tab displays the different packages where you can upgrade your account to a premium account namely silver, gold or platinum. Silver upgrade is a social media crawler, Gold upgrade is a Dark Web crawler and Platinum upgrade is a Live Crawler.

These three premium upgrades targets different users based on their interests. This could range from a single user trying to build his/her social media page without his/her content being stolen to a media company that could incur huge loss due to plagiarism.

Next to the pricing tab, there is a My Profile tab where the user can create their profile and add a brief description about themselves.
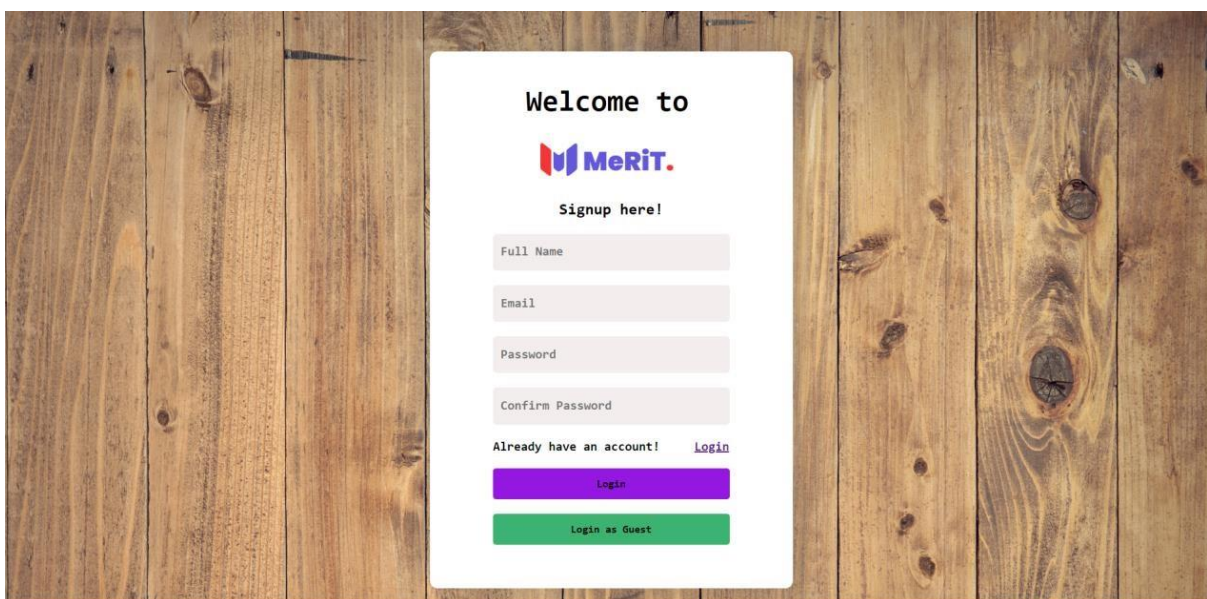
Coming down to the search, there are separate tabs where you can search for images, videos and articles separately. This is useful for segregation and easier navigation.

The about page contains information about the Project Description and also the solution description tells how the project was implemented.

The activity page shows the user activity information. It gives the number of searches made in the last 5 months as a graph. It also gives the different entities the user has searched for in the form of a pi chart.

Website Layout:

Sign Up:

Login:

Home:

About:

MeRiT.

About Us

Project Description

A Distributed Ledger System maintaining and monitoring the information on the copyrighted content provided by the legal owners. Such copyrighted content that could be accessed by our crawler to identify same or similar content on unauthorized websites. The crawler will index the URL and IP address of the platform hosting the content illegally. The system notifies the concerned owner of the copyright infringment, who verifies whether the content belongs to them.
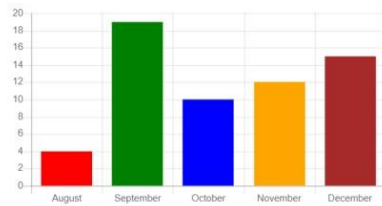
Describe the solution

Our solution combines web crawlers, deep web crawlers, a distributed ledger technology and machine learning to address the issue on media piracy. The ledger contributors are mainly the owners of the copyrighted content. According to their necessity, they can contribute a node to our blockchain and withdraw the node from the blockchain network. The crawler searches the internet for any similar content or link to the content whose information has been immutably stored on the blockchain. If found, the information is indexed to our system. It sends out a notification to the copyright content owner, who then verifies it and approves forwarding the crawled information to law enforcement or any other agency responsible for taking down the content. Existing solutions utilize crawlers just like our system. The novel approach we have taken is the employment of distributed ledger, which remove intermediaries, i.e., the system does not involve anyone else in the process other than the copyright owner. In our case, the content owner can be a part of the blockchain system and contribute to it. Law enforcement agencies and other agencies that can contribute by facilitating

content removal are also part of our blockchain ecosystem. Another key difference is that the existing service providers crawl the web only for the content they have been tasked to find on a contract basis. Our system lets the stakeholders manage the content database that they do not want to be infringed. During the prototype phase, a web crawler and a distributed blockchain ledger based on Hyperledger Fabric can be set up with the facility to search for content that the crawler has found and suspects of being infringed.
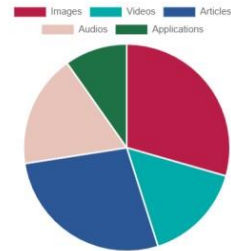

Solution Architecture

Activity:

**Different Entities
that you recently searched**

Images   Videos   Articles
Audios   Applications

**Number of Searches
made in the last 5 months**

20
18
16
14
12
10
8
6
4
2
0

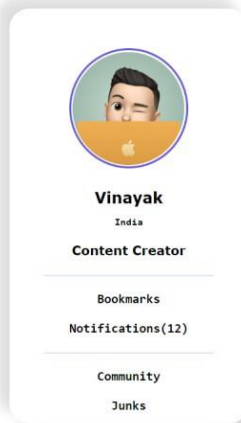August   September   October   November   December

Pricing:

Merit Premium Plans

Merit gives you unlimited web crawling and basic social media
crawling for Free. Upgrade to Premium and get even more.

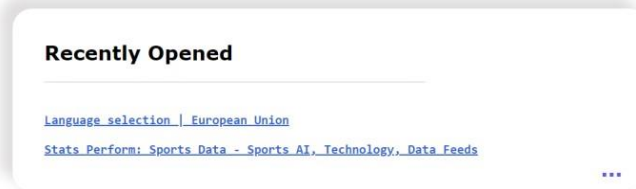| Guest	FREE	Silver	Gold	Platinum
₹0	₹0	₹125	₹185	₹325
Per Month	Per Month	Per Month	Per Month	Per Month
This is a normal search bar for people that are using the free version of the website	This is a normal search bar for people that are using the free version of the website	This is a normal search bar for people that are using the free version of the website	This is a normal search bar for people that are using the free version of the website	This is a normal search bar for people that are using the free version of the website

My Profile:

Website link (GitHub):

https://0xal4te.github.io/20CYS202-UID/Mini-Project/index.html

Figma File Link:

https://www.figma.com/file/nitZWirfiCSf7SO97YNCC8/MeRiT?nodeid =0%3A1