

# Youth Predator Detection System on Social Media

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**Abstract:** Proficient analysts should all the more completely comprehend the risks of online sexual sales and manners by which to shield youth from sexual stalkers who utilize the Internet. Albeit the Internet has numerous positive angles, quite possibly the most malicious aspect is its expected use for online sexual predation. The Internet addresses a medium that permits sexual stalkers admittance to innumerable kids in a moderately mysterious climate. The primary goal of our task is to distinguish kid hunter base on remarks and post of web-based media account and send hunter record to digital cell admin. A late public review demonstrated that around one out of five youth are requested for sex over the Internet yearly (Finkelhor, Mitchell, and Wolak, 2000; Mitchell, Finkelhor, and Wolak, 2001). This task report presents our present advancement to empower the formation of the framework. Thus, with the created framework, youngster hunter accounts recognition any report to administrator for additional activity.

**Keywords:** Machine Learning, Classification, etc.

## I. INTRODUCTION

Youngster Predator Detection System on Social Media is an web based application. This project expects to identify kid hunter remarks and post via online media like FB, Instagram and so forth and send report to digital cell administrator. To faster a very much planned information base to store all remarks and post of social. Although the Internet has many positive aspects, one of the most pernicious aspects is its potential use for online erotic predication. The Internet shows a medium that allows sex predators to enter numerous children in a relatively anonymous environment. The main objective of our project is to detect child predator base on comments and post of social media account and send predator record to cyber cell admin.

## II. LITERATURE SURVEY

The Grooming is the process where a predator builds trust with a child with the intention of sexual abuse. This usually includes lowering the child's inhibitions to sexual content. The word cyber is normally used to describe something that involves computers and networks. Thus, cyber grooming is when a predator is grooming a child over the Internet. Sexual predators come in contact with potential victims on social media and chat rooms. Various researchers have focused on detecting grooming chat conversations using author profiling techniques related to pattern recognition and textual analysis. One of the problems with analysis of chat data is that the manner in which people write in a chat is very informal, contains grammatical and typographical errors, and includes emoticons and other non-relevant information.

Besides that, each chat message in itself is only very short and there is interaction between the chatters in a chat room. Pendar [2] used automatic text categorization techniques to identify sexual predators, using Support Vector Machine (SVM) and k-Nearest Neighbours (k-NN) as classifiers. Pendar used 701 different predatory conversations from the Perverted Justice (PJ) website (see Section III for a description), and classified chatters as predator or victim based on all the messages of a chatter in a full conversation. McGee et al. [3] took an approach where single messages were labelled as predatory or benign and they used 33 PJ conversations to test the performance of their system.

They managed to correctly identify message on average 68.11% of the time. Inches and Crestani [4] gave an overview of the task and results of the PAN-2012 competition (see Section III for more details). The main goal of this competition was to identify predators in Authorized licensed use limited to: University of Canberra. Downloaded on June 07, 2020 at 23:19:45 UTC from IEEE Xplore. Restrictions apply a chat. The best results were obtained by Villatoro-Tello et al. [5] who used Neural Networks (NN) and SVM in a 2- stage approach. Their optimal result was achieved when using NN with a binary weighting scheme in both stages.

### III. REQUIREMENT

#### Functional Requirement

##### 1. User Requirement

1. User Registration
2. User Login (Enter User id and Password)
3. User can Post and Comment on social media.
4. User upload image.

##### 2. System Requirement

1. When a user creates an account, the server shall send a response email.
2. When a user login system will check validation user.
3. All post and comment are store in database
4. Text classification and image processing.
5. Predator detection and send report to admin.

##### 3. Admin Requirement

1. Taking action on predator report.
2. View predator report.

#### Non-Functional Requirements

##### 1. Performance Requirement

When server send response mail for registration the server must send them within 10 minutes of registration. We use the better performance and fast process based on web application.

##### 2. Security Requirement

Username and password display in of pages. We preventing unauthorized access for our system.

##### 3. Software Quality Requirement

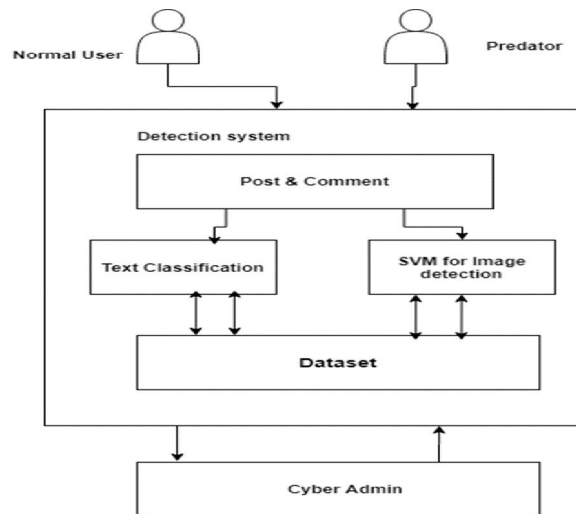
After detection of predator report will send within 5 min. We use advance software to develop system.

##### 4. GUI Requirement

- 3x3 box size of user comment box.
- 4x5 box size of user Image uploading box.

### IV. SYSTEM DESIGN

The previous chapter gave us the Software Requirements Specification (SRS) for the project with the SDLC model that is used for it. This chapter gives all the system designs such as system architecture and all the UML diagrams. e.g., use-case diagram, activity diagram, sequence diagram, etc.



System architecture is the conceptual model that defines the structure, behaviour, and more views of a system. System architecture of our project is System design defines the system architecture. It also describes the modules and interfaces. As shown in fig 4.1 explains the architecture of our system. The system architecture provides an insight of how the flow of process will be. Entire process of how the system will move forward that will generate the end-result is depicted. There are mainly two parts in system Architecture: We propose system for child predator detection system.

#### Function of System:

1. User:- In this project we will show two types of users. First normal user another type showing predatorbehaviour.
2. Training Module:- In training module we using dataset for text classification and SVM algorithm for image detection. After Training Module will send predator report to cyber admin.
3. Cyber System:- Checking all predator report and taking action according to that report.

#### V. RESULT

1. User will create an account where they have to add their details.

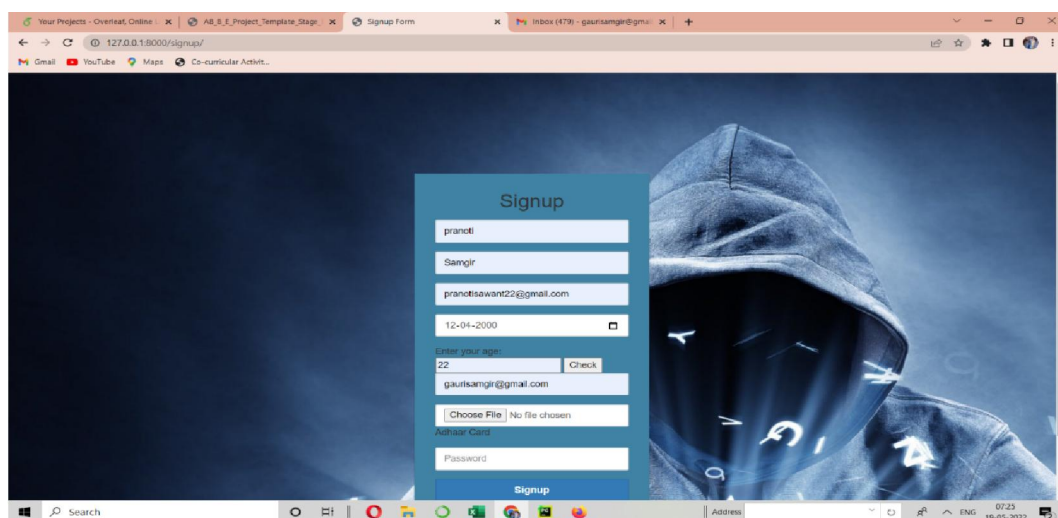
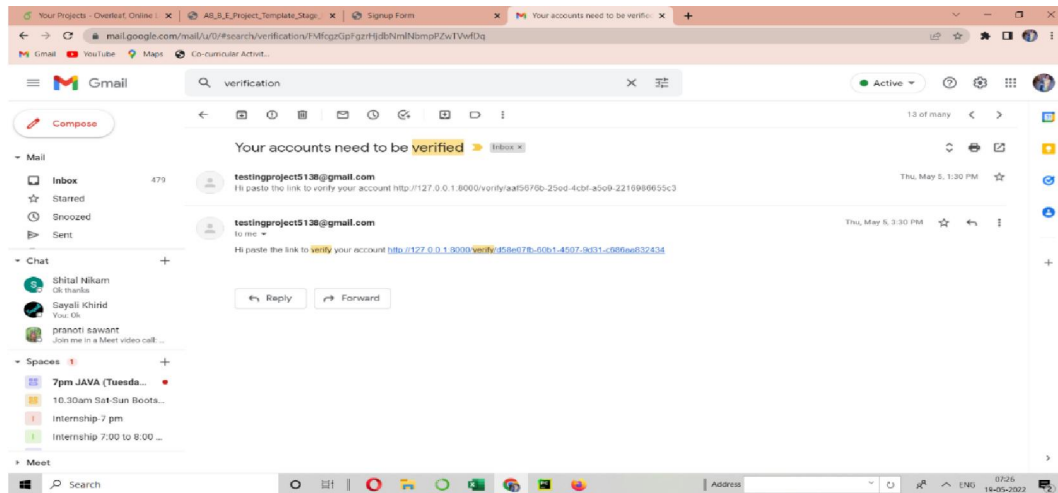


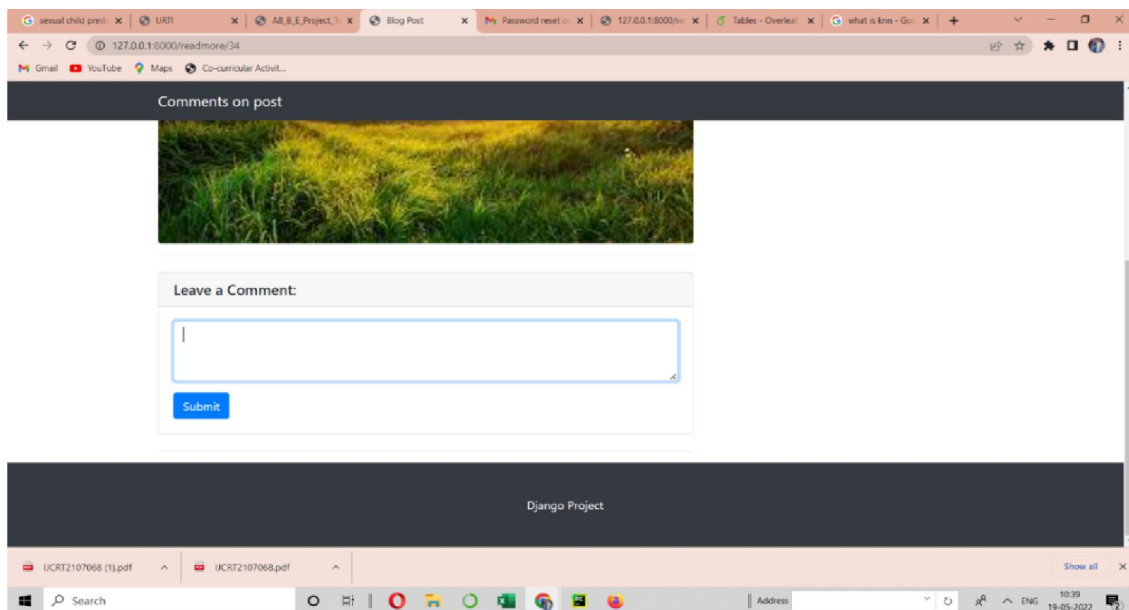
Figure 1: User Log in

2. Verification mail will be sent to the given email id which user provided in user sign up form.



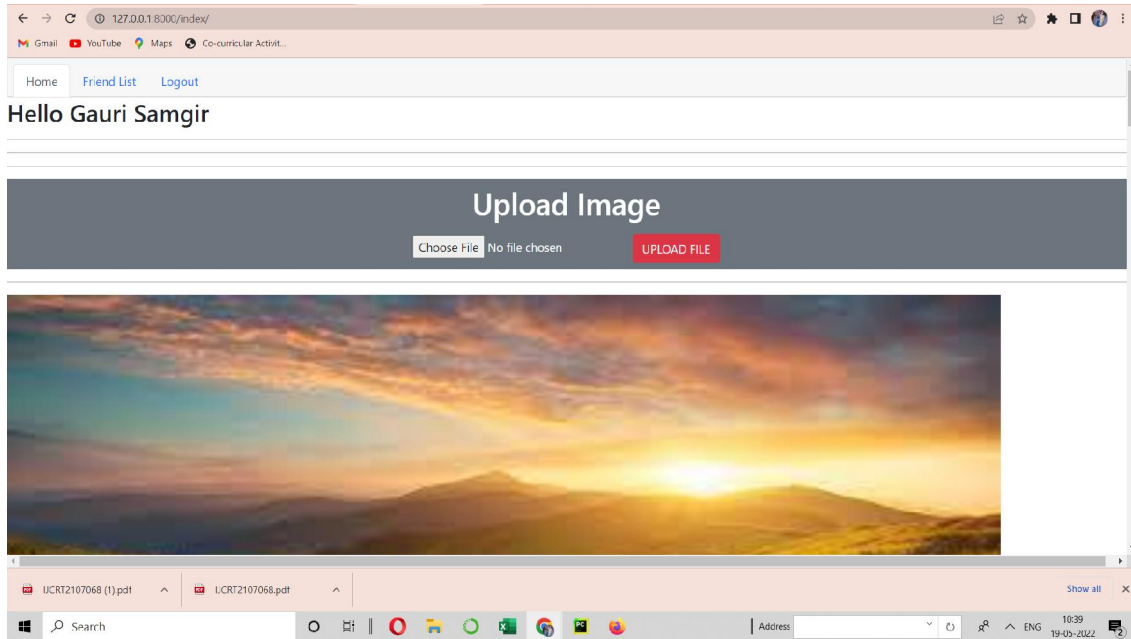
**Figure 2: Account Verification**

3. Then user will be able to add comment on post where he wants to comment.



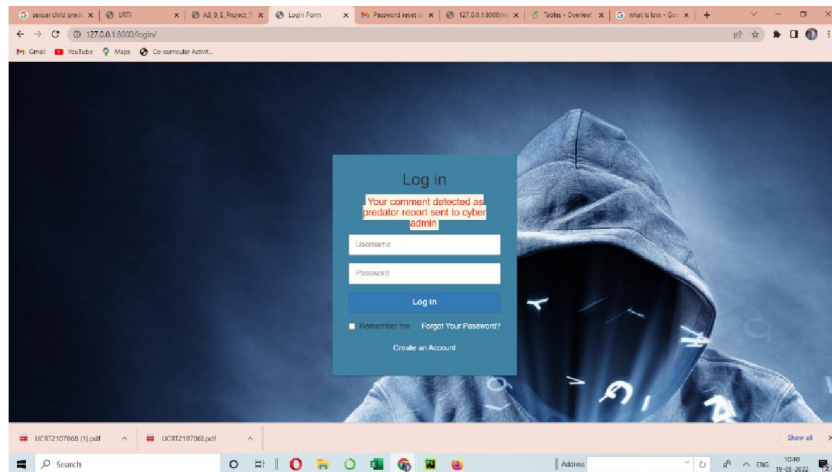
**Figure 3: Add a Comment**

4. User will also be able to upload image and post that image.



**Figure 4: Uploading Image**

5. If comment and image which is posted found offensive. It will detect and report is sent to the cyber cell admin.



**Figure 5: Detection**

## VI. CONCLUSION

The cost to children and society of sexual perpetration is too great to overlook the hazards of online solicitation. The aim of the groomer is to build a relationship with a child in order to gain access to that child. When grooming takes place, it is common that an adult groomer is pretending to be a child with common hobbies or interests to build a relationship that includes trust with the child. In this project we detect predator of child for child safety.

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#### REFERENCES

- [1] 29-30 April 2020 Muhamad Ali, Partick Bours Ensemble method for erotic predator identification. They study an Effective method for erotic predator identification.
- [2] 7-9 Sept. 2015 Michael Ashcroft; Lisa Kaati; Maxime Meyer A Step Towards Detecting Online Grooming – Identifying Adults Pretending to be Children They implemented automated analysis of chat room conversation to detect and possible attempts of grooming.
- [3] 2004 Stefan C. Dombrowski, John W. LeMasney, and C. Emmanuel Ahia Protecting Children from Online Sexual Predators: Technological, Psychoeducational, and Legal Considerations This article reviews strategies of sexual perpetrators and their characteristics, as well as the online strategies and characteristics of the cyber sexual predator.
- [4] 2019 Tatiana R. Ringenberg; Kanishka Misra; Julia Taylor Rayz Not So Cute but Fuzzy: Estimating Risk of Sexual Predation in Online Conversations propose a method for labeling risk tied to stages and themes of the grooming process, using fuzzy sets.
- [5] 2020 Hee-Eun Lee, Tatiana Ermakova Detecting child sexual abuse material: A comprehensive survey. The present research provides a comprehensive synthesis and an interpretation of the current research accomplishments and challenges in the CSAM detection domain, explicitly considering the dimensions of policy and legal framework distribution channels, and detection applications and implementations.