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***FOOTPRINT***  
**USER MANUAL**

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Version 1.0

12/1/2024

# 1 Introduction

## 1.1 Purpose

The purpose of this user manual is to provide information and demonstrate how the software Footprint should be used. This manual will guide both users, or general law enforcement, and admin, or the developers, how to use Footprint.

## 1.2 Overview

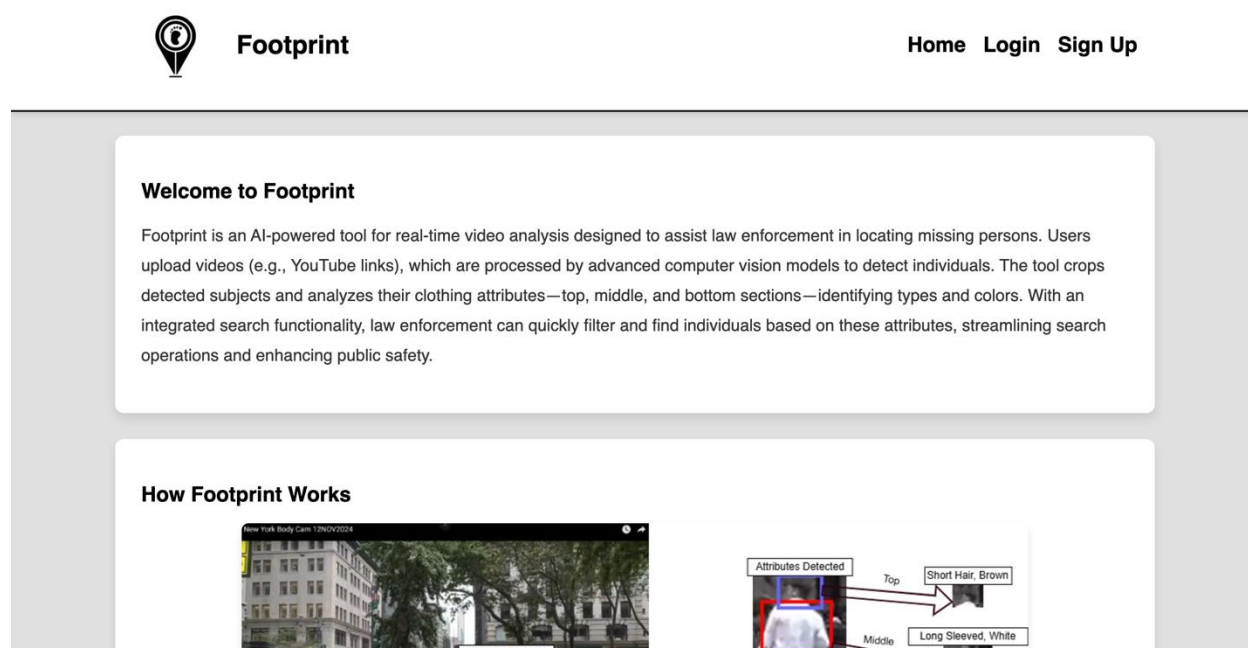
The intention of the software, Footprint, is to identify missing individuals from videos uploaded by the user based off of clothing attributes.

# 2 Getting Started

Please reference the README on the Github (<https://github.com/TKosinski24/CSC-4996-Footprint.git>) or in the pdf provided to set up the environment for Footprint.


# 3 General User Functionality

These functionalities can be used by the users, or law enforcement, or admin, the developers. Once the environment is set up following the README, the user will be met with the “Home” page.



### 3.1 Sign-up

Using the “Sign-up” button in the upper righthand corner of the screen, users will log in using their first and last name, a valid email, their department, and a valid password following the criteria seen below (at least 8 characters, one uppercase letter, and one lowercase letter).

**Footprint**

Home Login Sign Up

First Name:

User

Last Name:

Example

Department Name:

Sample Police Department

Email:

userexample@email.com

Password:

•

Retype Password:

Passwords do not match.

✗ At least 8 characters

✗ One uppercase letter

✗ One lowercase letter

Sign Up

### 3.2 Log-in


Users must first wait for the admin to approve their account. Once approved by admin, the user can log in using their email and password.



## Login to Your Account

Email:

Password:



Login

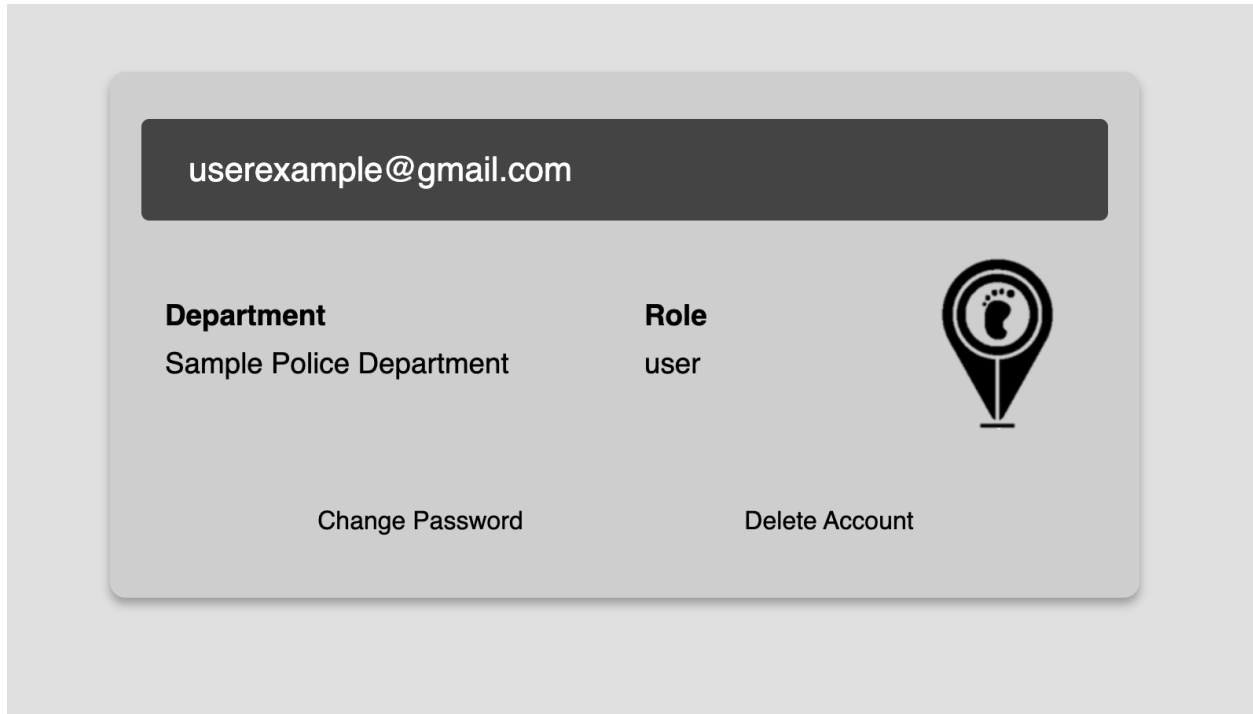
Don't have an account? [Sign up here](#)


Once logged in, the user may utilize the full features on the navigation bar. From left to right, the navigation options can be seen below. “Home” is the screen that the user is first met with, “Dashboard” is where the user can search videos using clothing attributes, “Upload” allows the user to upload their own video feed link for processing, “Profile” is where the user can see their user information (name, email, department, role) and change password or delete account, and “Logout” is to sign out of their account.

Log out using “Logout” in the navigation bar as mentioned in 3.3.

### 3.5 Profile

Here, the user is met with their user information, including their full name, email, department, role, and the option to change their password and delete their account. Clicking on either "Change Password" or "Delete Account" will bring the user to their respective modal.

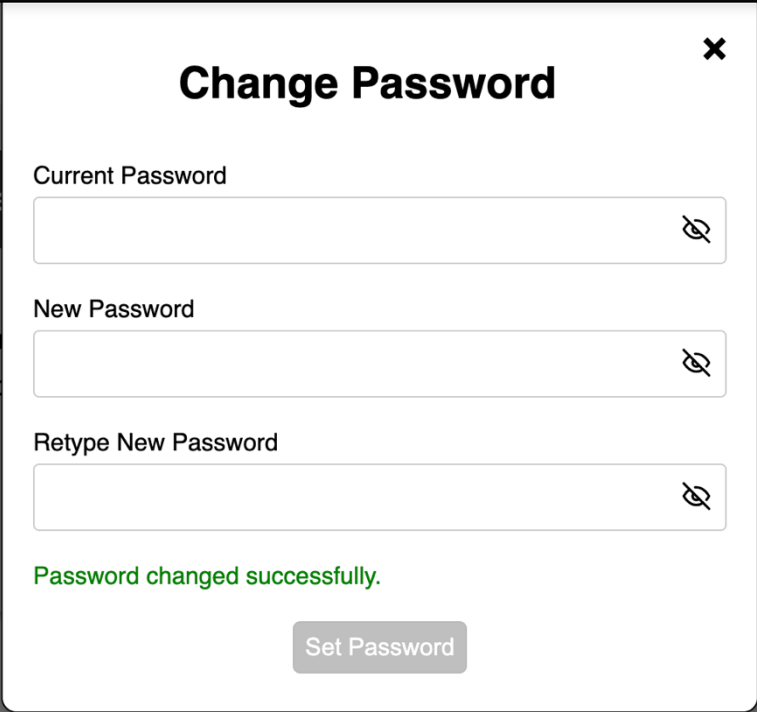
A user profile modal with a light gray background and rounded corners. At the top is a dark gray bar containing the email address "userexample@gmail.com" in white text. Below this, the profile information is organized into two columns. The left column has the label "Department" in bold, followed by the text "Sample Police Department". The right column has the label "Role" in bold, followed by the text "user". To the right of the "Role" text is a circular icon containing a footprint, with a location pin symbol below it. At the bottom of the modal, there are two buttons: "Change Password" on the left and "Delete Account" on the right.

userexample@gmail.com	
<b>Department</b> Sample Police Department	<b>Role</b> user
	
Change Password	Delete Account

#### 3.5.1 Change password

After clicking on the "Change Password" button, the user will be met with the "Change Password" modal. To successfully change their password, the user will need to enter their current password, a new password with the same password criteria as 3.1 Sign-up, and the same new password retyped. Once all requirements are met, the user may submit and be

met with the success message seen below.



A modal window titled "Change Password" with a close button (X) in the top right corner. It contains three input fields: "Current Password", "New Password", and "Retype New Password". Each field has a toggle icon (an eye with a slash) on the right side. Below the input fields, a green message states "Password changed successfully." At the bottom center, there is a button labeled "Set Password".

### 3.5.2 Delete account

If the user wants to delete their account instead, they can open the “Delete Account” modal by clicking on “Delete Account.” Once opened, the user will need to enter their current password to successfully delete their account. After deleting, the user should return to the homepage and with a success message that the account has been deleted.

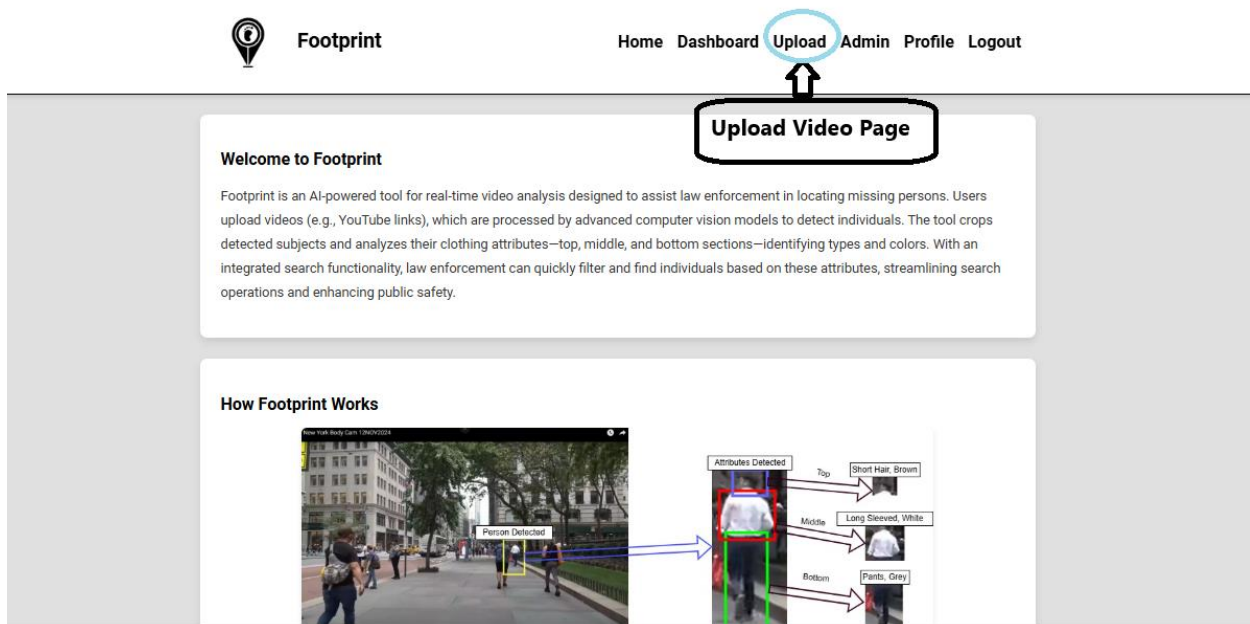
## 3.6 Upload video

The **Upload Video Page** allows users and admins to upload YouTube video links, configure processing options, and monitor upload progress in real time. This guide walks you through the steps of using this feature for the first time.

### 3.6.1 Access the Upload Video Page

1. Navigate to the Upload Video page from the website's navigation bar and click “Upload”.
  - a. The Upload Video Page consists of two main sections:

- b. Upload Form: Located at the top left of the page named “Upload YouTube Video”, this section allows users to input video details and preview them before uploading.
  - i. Upload Tables: Positioned directly on right of the input form, this section is divided into:
    1. Upload Queue Table: Displays videos currently being processed or failed processing
    2. Upload History Table: Lists videos that have been successfully processed.



### 3.6.2 Uploading Video For Analysis

#### 1. Insert YouTube Video Link


- c. Locate the input form at the top right of the page.
- d. Fields to Fill:
  - i. **Video Link:** Paste the URL of the YouTube video. *(Note: YouTube Shorts are not supported.)*
  - ii. **Feed Name:** Enter a unique name to identify the video feed.
  - iii. **Processing Speed:** Select the frame processing speed:
    1. **“Fast”** for 1 frame every second.
    2. **“Medium”** for 1 frame every 5 seconds.
    3. **“Slow”** for 1 frame every 10 seconds.

#### Purpose of Different Processing Speeds

The processing speed options let users prioritize speed or detail based on their needs:

1. Fast (1 frame per second): Quickly processes fewer frames, providing initial results for an early head start in searching. Ideal for urgent cases.
2. Medium (1 frame every 5 seconds): Balances speed and detail, covering more frames without taking too long.
3. Slow (1 frame every 10 seconds): Processes the full video with minimal frames, focusing on comprehensive but slower analysis.

Users can start with Fast speed for quick initial scans and later process the same video at Medium or Slow speeds for more detailed results, ensuring both fast insights and thorough coverage.


**Footprint**
Home Dashboard Upload Admin Profile Logout

Input form

Upload YouTube Video

Enter a YouTube video link to process it with our AI model. Choose the processing speed that suits your needs.

Feed Name:

YouTube Video Link:

Processing Speed

Slow

Medium

Fast

Slow: Analyzes 1 frame per second for higher accuracy.

Medium: Analyzes 1 frame every 5 seconds for balanced performance.

Fast: Analyzes 1 frame every 10 seconds for quicker results.

Estimated processing time: Moderate

Upload

Upload Queue

Feed Name	Status	Uploaded At	Action
<a href="#">20s New York</a>	uncomplete	11/19 02:39 PM	Delete

Refresh

Upload History

Feed Name	Status	Uploaded At
<a href="#">walking people with Mask</a>	finished	11/27 12:59 AM
<a href="#">8k video</a>	finished	11/21 08:54 PM

## 2. Preview the Video

- Once you enter the video link:
  - A preview window will appear below the form, allowing you to verify the video content.
  - Use the play button to ensure the link is correct.






example 1

Refresh

<a href="#">Link video</a>	finished	11/21 08:54 PM
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YouTube Video Link:

Video Preview:  


Processing Speed:

Slow: Analyzes 1 frame per second for higher accuracy.  
Medium: Analyzes 1 frame every 5 seconds for balanced performance.  
Fast: Analyzes 1 frame every 10 seconds for quicker results.

Estimated processing time: Moderate

### 3. Submit the Video for Processing

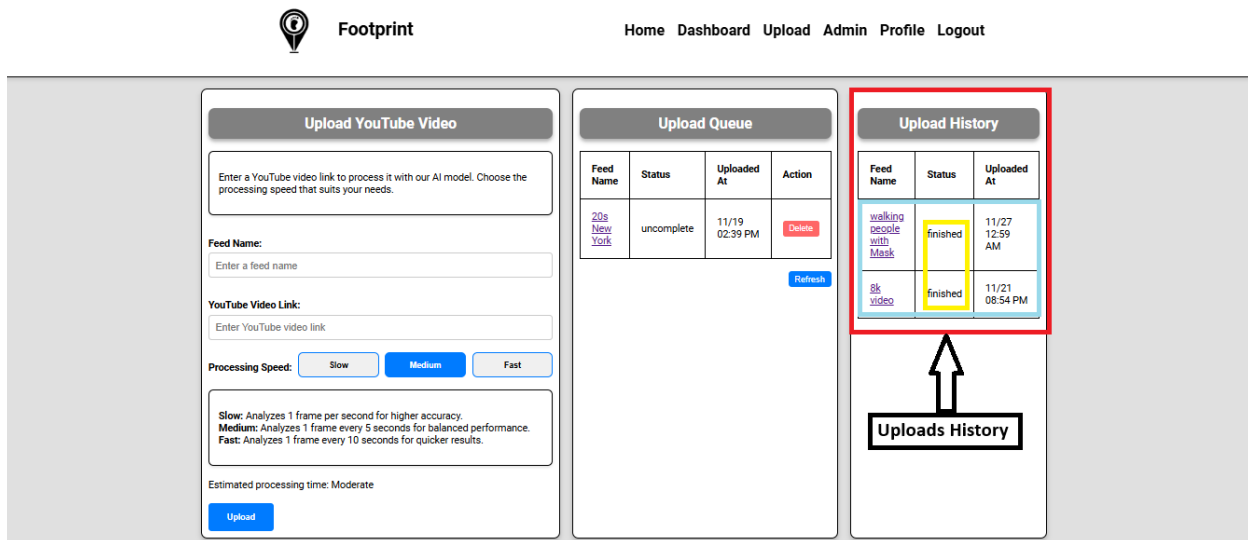
- Click the **“Upload”** button to queue the video for processing.

#### 3.6.3 Queue functionalities

- Manage Uploads:** Once submitted, the video will appear in the **Upload Queue Table** with the following details:

- Feed Name:** The name you assigned to the video.
- Status:** Initially, the status will be set to **Queued**, indicating it is waiting to be processed.
- Uploaded At:** The timestamp of when the upload was initiated.
- Action:** The table includes a **Delete** button in the Action column, which allows you to cancel processing for videos with the **Queued** status only.



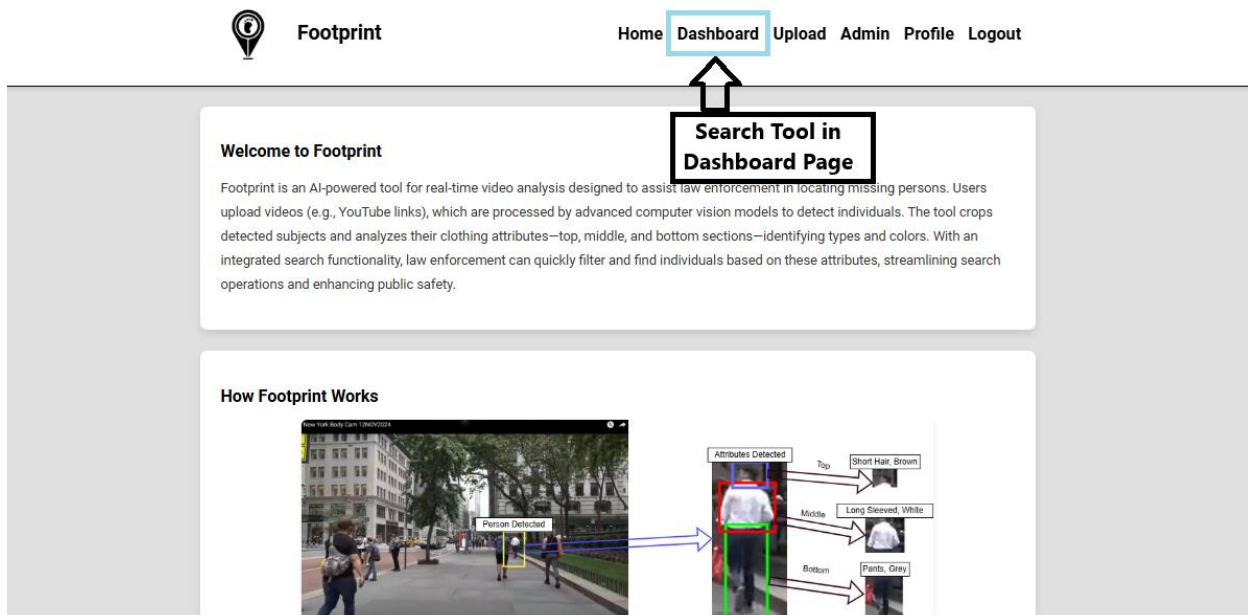


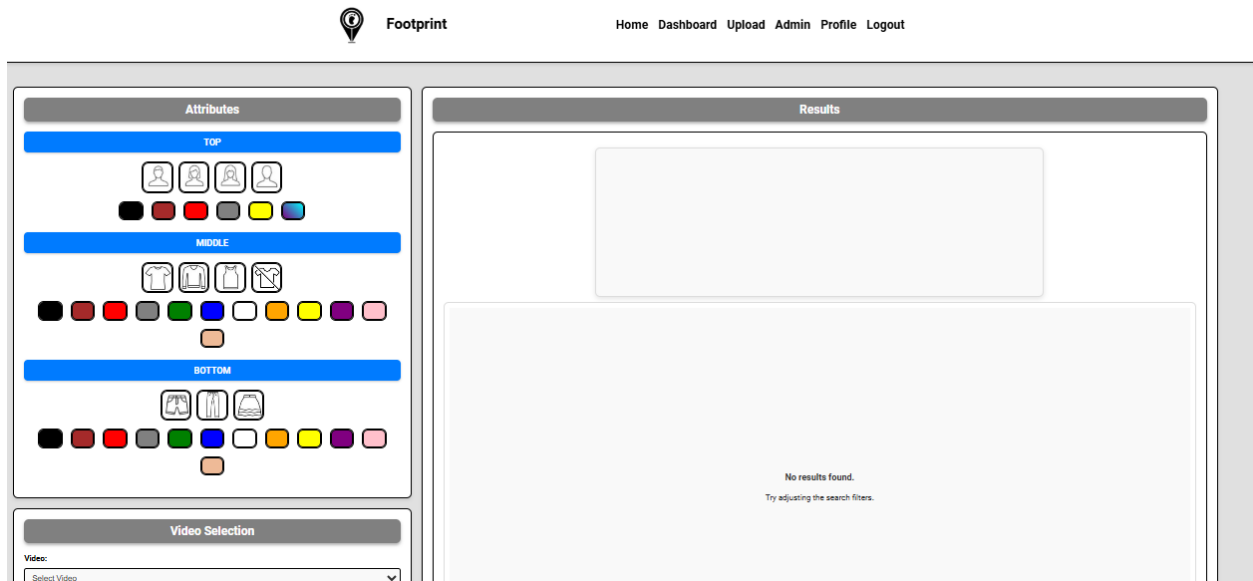
## 3.7 Attribute Dashboard

### 3.7.1 Access the Dashboard Page

#### 1. Navigate to the Dashboard Page

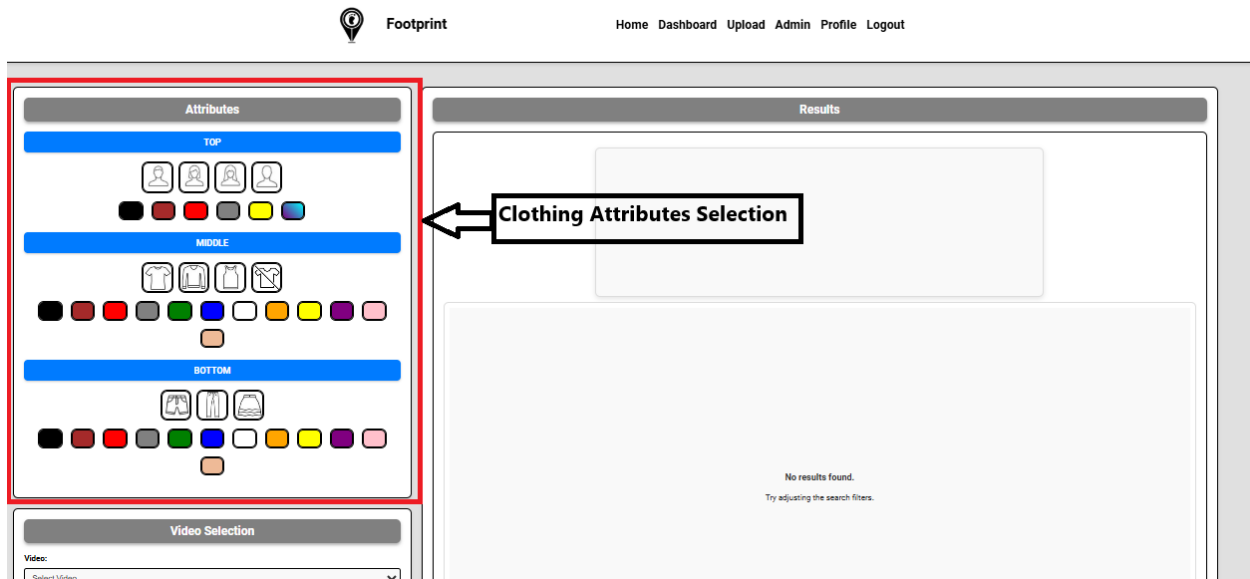
- Access the **Dashboard** page from the website's navigation bar.
- The page has the following sections:
  - Clothing Attribute Selection:** Choose clothing types and colors for the top, middle, and bottom body sections.
  - Video Selection:** Select the video feed to search through.
  - Summary Section:** Review your selected attributes and chosen video feed
  - Results section:** view results of found persons





### 3.7.2 Select Clothing Attributes

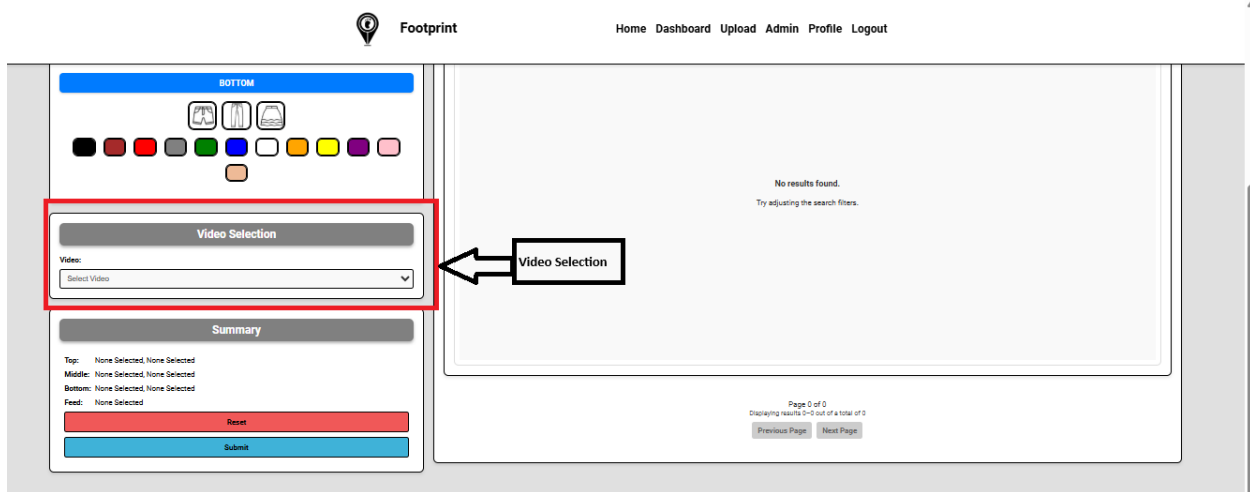
1. For each body section, choose the clothing type and color:
  - a. **Top Section:**
    - i. **Clothing Type:** Choose from the following options: (No Hair, Short Hair, Medium Hair, Long Hair)
    - ii. **Color:** Select the desired color by clicking on a colored button.
  - b. **Middle Section:**
    - i. **Clothing Type:** Choose from the following options: ( Short Sleeved, Long Sleeved, Sleeveless Shirt, No Shirt )
    - ii. **Color:** Select the desired color by clicking on a colored button.
  - c. **Bottom Section:**
    - i. **Clothing Type:** Choose from the following options: (Shorts, Pants, Skirts )
    - ii. **Color:** Select the desired color by clicking on a colored button.



### 3.7.3 Video Selection

#### 1. Select Video to search through

- d. From the **Video Selection** dropdown menu, choose the name of the video feed you want to search through.



### 3.7.4 Summary Section and Search Submission

#### 1. Review Selections in the Summary Section

- a. After making your selections, the Summary Section will display your inputs in an easy-to-read format
- e. The summary updates dynamically as you make changes.

#### 2. Clear Selections (Reset Button)

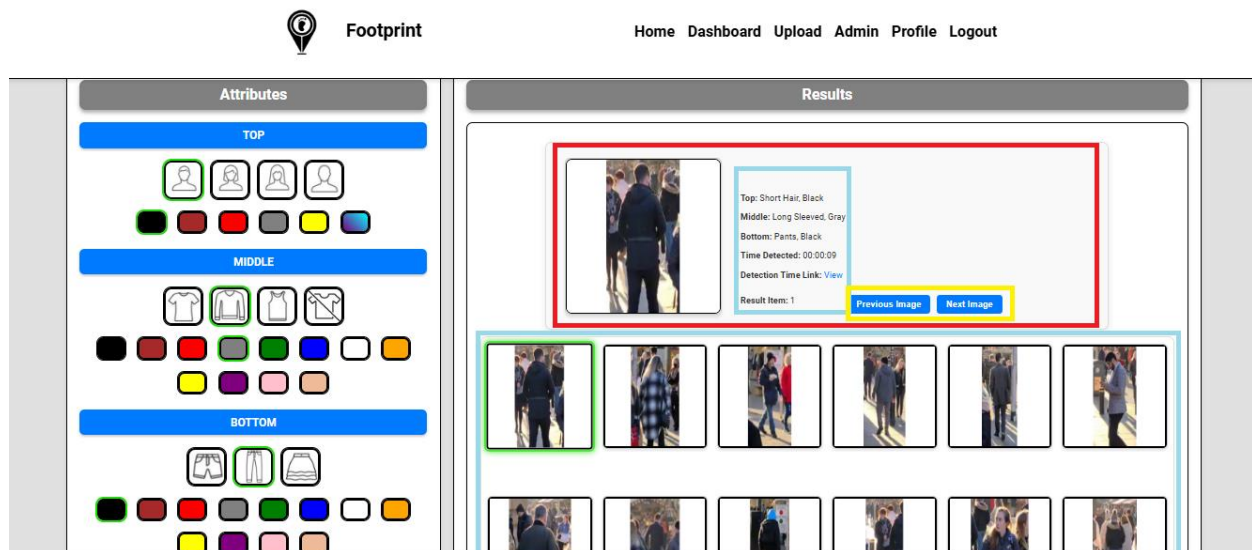
- a. Click the **Reset** button to clear all your selections and reset the **Summary Section**.

- b. This action removes all selected clothing attributes and the chosen video feed.
- 3. **Submit Selections (Submit Button)**
  - a. Once satisfied with your selections, click the Submit button to start the search process.
  - b. This action submits the selected attributes and video feed to the system for Search processing.

### 3.7.5 Person Preview Section

The **Preview Section** shows the details of the currently selected person. It includes:

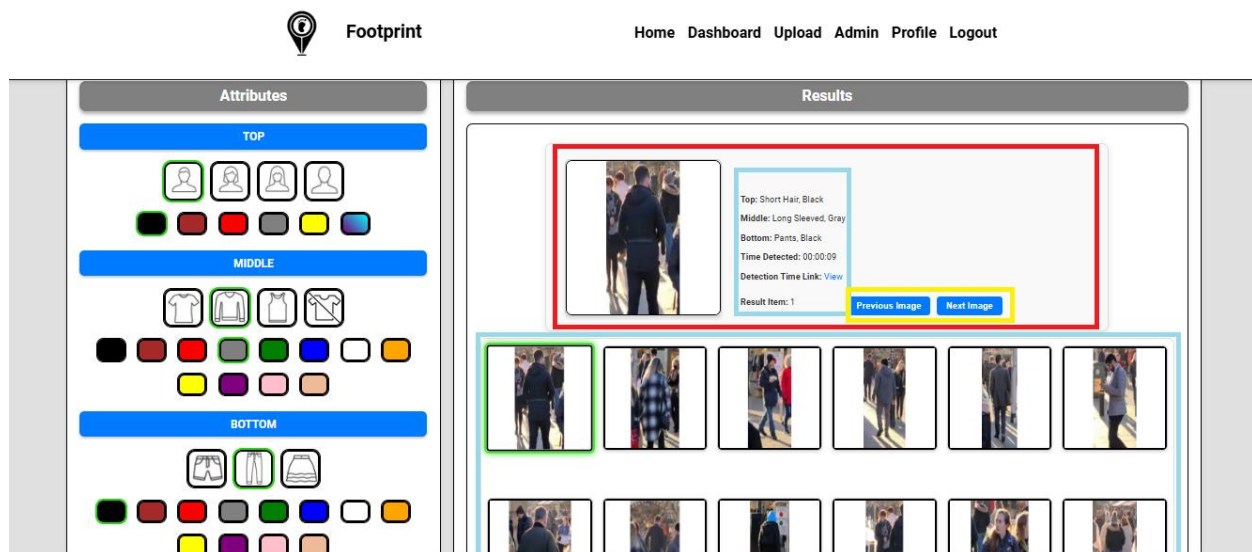
- **Attributes:**
  - **Top:** Displays the detected clothing type and color for the top body section. If undetected, it shows "Undetected."
  - **Middle:** Displays the detected clothing type and color for the middle body section.
  - **Bottom:** Displays the detected clothing type and color for the bottom body section.
- **Time Detected:** The timestamp in the video where the person was detected.
- **Detection Time Link:** A clickable "View" link that takes you directly to the detection time in the video.
- **Result Item:** The result number in the list, ordered from best match (1) to least matching.
- **Navigation:**
  - **Previous Image:** Click to view the previous result.
  - **Next Image:** Click to view the next result.



### 3.7.6 Results Lists

The **Results List** is displayed below the preview section and contains thumbnail images of detected persons.

- **Interactivity:**
  - Click on any image in the list to load its details into the preview section.
  - The preview updates dynamically to show the attributes and details of the selected image.



### 3.7.7 Navigation Tools

- **Next and Previous Buttons:**
  - Located in the **Preview Section**.
  - Use these to navigate through the detected persons sequentially.
- **Pagination Tool:**
  - If the results exceed 15 images, a pagination tool appears below the **Results List**.
  - Click on a page number to view the next set of images.

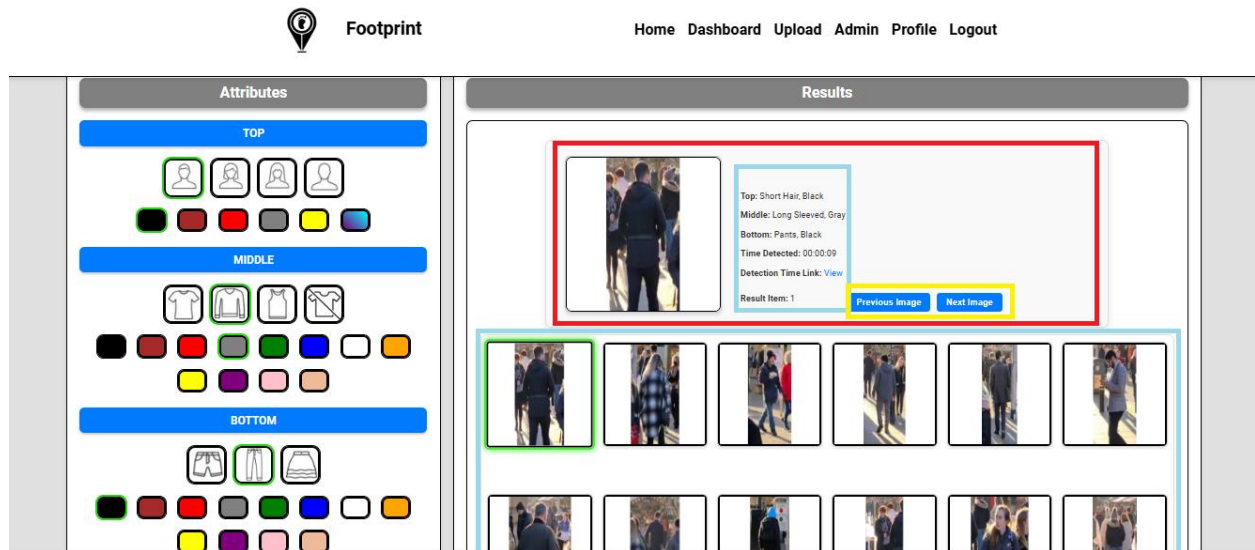
The screenshot displays the 'Footprint' application interface. At the top, there is a navigation bar with a location pin icon and the text 'Footprint', followed by links: 'Home', 'Dashboard', 'Upload', 'Admin', 'Profile', and 'Logout'. The main interface is divided into two columns. The left column contains a 'Video Selection' section with a 'Video:' dropdown menu set to '8k video', and a 'Summary' section with fields for 'Top: Short Hair, Black', 'Middle: Long Sleeved, Gray', 'Bottom: Pants, Black', and 'Feed: 8k video'. Below these are 'Reset' and 'Submit' buttons. The right column shows a 'Results List' with a grid of video thumbnails. Below the thumbnails, a pagination box is highlighted with a red rectangle, containing the text 'Page 1 of 1', 'Displaying results 1-15 out of a total of 15', and 'Previous Page' and 'Next Page' buttons.

### 3.7.8 Sorting of Results

#### Best Match to Least Matching:

- Results are ordered from the best match (Result Item: 1) to the least matching attributes.
- The most relevant detections appear at the top of the list for easy review.





## 4 Admin

The following functionalities below are only reserved for admin. The admin has access to one more item on their navigation bar, “Admin” as seen below. All other navigation buttons and the other functionalities are the same as described and depicted in section 3 General User.

**Home   Dashboard   Upload   Admin   Profile   Logout**

### 4.1 Admin Dashboard

Once clicking on “Admin” in the admin dashboard, the admin will be met with a dashboard listing all the users that have a registered email for Footprint, when their account was created, their first and last name, department, account status, and the dropdown menu named “Action.”



### User Registrations

Filter by Status: All Sort by Date: Newest Filter by Department: All Departments Search:  Search Reset

Showing 1 - 10 of 23 accounts

Account Created	Email	First Name	Last Name	Department	Account Status	Action
Dec 02, 2024 05:08 p.m.	john.smith1@gmail.com	John	Smith	Detroit Police Department	pending	<span>Change Status</span>

#### 4.1.1 Change Status

The admin has the ability to change the status of users. Admin may change any user's account status to approved, pending, or denied, where only approved users may log in and use Footprint's features. To do so, the admin clicks on the drops down menu and clicks on a status.



### User Registrations

Filter by Status: All Sort by Date: Newest Filter by Department: All Departments Search:  Search Reset

Showing 1 - 10 of 23 accounts

Account Created	Email	First Name	Last Name	Department	Account Status	Action
Dec 02, 2024 05:08 p.m.	john.smith1@gmail.com	John	Smith	Detroit Police Department	pending	<div><span>✓ Change Status</span> <span>Approve</span> <span>Deny</span></div>

#### 4.1.2 Filter

The admin also has the ability to filter users by department using the "Filter by Department" drop down menu, where the options are all of the departments of all users.

Once clicking on a department, only those users will populate the admin dashboard.

### User Registrations

Filter by Status:  Sort by Date:  Filter by Department:  Search:

Showing 1 - 10 of 23 accounts

Account Created	Email	First Name	Last Name	Department	Account Status	Action
Dec 02, 2024 05:08 p.m.	john.smith1@gmail.com	John	Smith	Detroit Police Department	pending	<input type="button" value="Change Status"/>

#### 4.1.3 Search

The admin may search users by name or by email using the input text box on the upper right. Note that this search feature is not case sensitive. After entering a name or email, the admin may hit “Enter” on their keyboard or click on the “Submit” button on the upper right.

**User Registrations**

Filter by Status:  Sort by Date:  Filter by Department:  Search:

Showing 1 - 3 of 3 accounts

Account Created	Email	First Name	Last Name	Department	Account Status	Action
Dec 02, 2024 05:08 p.m.	john.smith1@gmail.com	John	Smith	Detroit Police Department	pending	<input type="button" value="Change Status"/>
Nov 18, 2024 06:17 a.m.	johnsmith@gmail.com	John	Smith	Detroit Police Department	approved	<input type="button" value="Change Status"/>
Nov 13, 2024 03:33 p.m.	john.smith@gmail.com	john	smith	Troy Police Department	approved	<input type="button" value="Change Status"/>

The user may also reset the search bar clicking on the “Reset” button on the upper right.

#### 4.1.4 Sort

The admin can use the “Sort by Dates” dropdown feature on the admin dashboard to sort the users by account created from oldest to newest and populate the admin dashboard with (and vice-versa). Sort by newest will be by default.

## User Registrations

Filter by Status: All Sort by Date: Oldest Filter by Department: All Departments Search:  Search Reset

Showing 1 - 10 of 23 accounts

Account Created	Email	First Name	Last Name	Department	Account Status	Action
Oct 28, 2024 05:31 p.m.	akramango@gmail.com	akram	ali	Detroit Police Department	approved	<span>Change Status</span>
Nov 06, 2024 09:32 p.m.	Timkosinsi0972@gmail.com	tim	kosinski	Detroit Police Department	approved	<span>Change Status</span>

### 4.1.5 Pagination

The pagination at the bottom of the admin dashboard allows admin to go through 10 users at a time, where only 10 users are populated at most on the admin dashboard. By clicking “next” or “previous,” the admin can populate the next or previous ten users.

Nov 12, 2024 12:35 a.m.	michael.brown@gmail.com	michael	brown	Wyandotte Police Department	pending	<span>Change Status</span>
Nov 12, 2024 12:34 a.m.	maria.garcia@gmail.com	maria	garcia	Wyandotte Police Department	denied	<span>Change Status</span>

Page 2 of 3 Previous Next

## 5 Troubleshooting

Presented below are some common errors with easy fixes when using the software Footprint.

### 5.1 Unable to Sign-Up

Ensure that all sign-up criteria are met: there are no numbers in the first or last name, the password criteria displayed are met, you are not using an email attached to an existing account—whether it is approved, pending, or denied—and the retyped password matches. The user may use the eye icon on the right of the password input to show the text of the password to ensure that the criteria are met and that the two passwords match.

## 5.2 Information Not Loading

There may be times when the browser does not properly load the session variables, resulting in certain information not loading (such as “Profile” information or upload video link). To trouble shoot this, ensure cookies are on, clear both cookies and cache, and then restart the software.