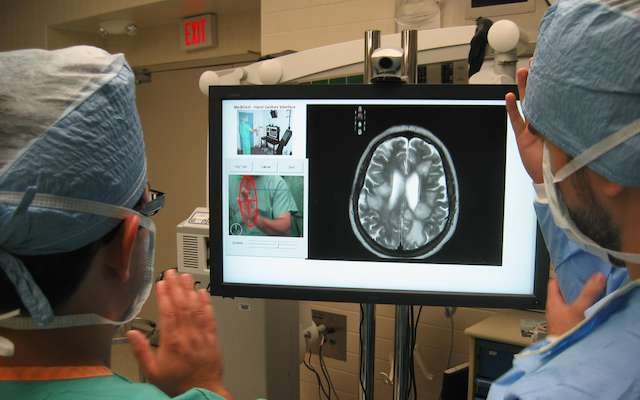


About photo



About photo



Access webcam

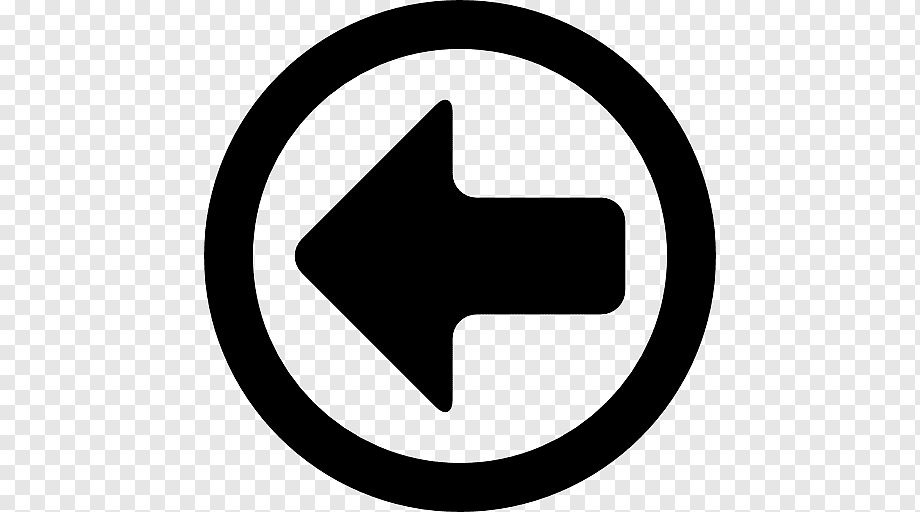
Gestures



Oae Ta•o







Go back

Technical Architecture







uata



Use I



Tool icon



Upload image





DE drag and drDp them here

User photo



About html

<!DOCTYPE html>

<html lang="en">

<head>

<!-- Required Meta Tags -->

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

</head>

<body style="overflow-x: hidden; background-color: #e3e6e4;">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

<nav class="navbar bg-dark">

<div class="container-fluid">

<a class="navbar-brand" href="https://smartinternz.com/guided-project/a-gesture-based-tool-for-sterile-browsing-of-radiology-images-cnn-and-open-cv" target="\_blank" style="color:white">

<img src="{{url\_for('static', filename='tool-icon.png')}}" alt="Logo" width="23" height="24" class="d-inline-block align-text-top">

IBM Nalaiya Thiran - PNT2022TMID53060

</a>

<ul class="nav nav-pills">

<li class="nav-item">

<a class="nav-link" href="#scrollspyHeading1" style="color:white" >Sign Up</a>

</li>

<li class="nav-item">

<a class="nav-link" href="#scrollspyHeading2" style="color:white">Sign In</a>

</li>

</ul>

</div>

</nav>

<div class="container-fluid text-center" style="margin: 40px;">

<div class="jumbotron text-center">

<h1>A Gesture Based Tool for Sterile Browsing of Radiology Images</h1>

</div>

</div>

<div class="container">

<div class="col d-flex justify-content-center">

<div class="card justify-content-center" style="width: 80%;">

<img class="card-img-top rounded mx-auto d-block" src="{{url\_for('static', filename='about-photo.jpg')}}" alt="Card image cap" style="max-width: 40%;max-height: 60%; margin: 10px;">

<div class="card-body">

<p class="card-text" align="justify">Humans are able to recognize body and sign language easily. This is possible due to the combination of vision and synaptic interactions that were formed along brain development. In order to replicate this skill in computers, some problems need to be solved: how to separate objects of interest in images and which image capture technology and classification technique are more appropriate, among others.</p>

<p class="card-text" align="justify">In this project Gesture based Desktop automation, first the model is trained pre trained on the images of different hand gestures, such as a showing numbers with fingers as 1,2,3 and 4. This model uses the integrated webcam to capture the video frame. The image of the gesture captured in the video frame is compared with the Pre-trained model and the gesture is identified. If the gesture predictes is 1 then images is blurred; 2 image is resized; 3 image is rotated etc.</p>

</div>

</div>

</div>

</div>

<div class="d-flex justify-content-center" style="margin: 20px;">

<div class="row" style="width: 50%;">

<div class="col-sm-6" id="scrollspyHeading1">

<div class="card">

<div class="card-body">

<h5 class="card-title">Sign Up</h5>

<p class="card-text">Don't have an account? Sign up below!</p>

<a class="btn btn-primary" href="{{url\_for('register')}}">Sign Up</a>

</div>

</div>

</div>

<div class="col-sm-6" id="scrollspyHeading2">

<div class="card">

<div class="card-body">

<h5 class="card-title">Sign In</h5>

<p class="card-text">Existing User? Sign in here!</p>

<a class="btn btn-primary" href="{{url\_for('login')}}">Sign in</a>

</div>

</div>

</div>

</div>

</div>

</body>

</html>

Change\_password.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

</head>

<body style="background-color: #f0f5f2;">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

{% from "registration\_form\_helper.html" import render\_field %}

{% include "message\_flash.html" %}

<nav class="navbar navbar-expand-lg navbar-dark bg-dark" style="padding: 10px">

<a class="navbar-brand">{{session.username}}'s Account</a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarText" aria-controls="navbarText" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse" id="navbarText">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="{{url\_for('landingpage')}}">Home</a>

</li>

<li class="nav-item">

<a class="nav-link" href="{{url\_for('help')}}">Help</a>

</li>

<li class="nav-item">

<a class="nav-link" href="{{url\_for('predict')}}">Gesture Prediction</a>

</li>

</ul>

</div>

</nav>

<div class="card text-white bg-dark mb-3 mx-auto" style="max-width: 80%; margin-top: 5%;">

<div class="card-header">Account Settings</div>

<div class="card-body">

<h5 class="card-title">Change Password</h5>

<p class="card-text">Change your account's password here. Use the first text box to enter the new password. Confirm it by typing in the same password in the text box below.</p>

<form class="form-group" method="post" action="">

<div class="form-group" style="padding: 10px;">

{{render\_field(form.new\_password, class="form-control")}}

</div>

<div class="form-group" style="padding: 10px;">

{{render\_field(form.new\_confirm, class="form-control")}}

</div>

<div class="card-footer text-center">

<p><input type="submit" value="Submit" class="btn btn-primary" style="margin-top: 20px;"></p>

</div>

</form>

</div>

</div>

</body>

</html>

Help.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

</head>

<body style="overflow-x: hidden; background-color: #e3e6e4;">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

<nav class="navbar navbar-expand-lg navbar-dark bg-dark" style="padding: 10px">

<a class="navbar-brand">{{session.username}}'s Account</a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarText" aria-controls="navbarText" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse" id="navbarText">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="{{url\_for('landingpage')}}">Home</a>

</li>

<li class="nav-item">

<a class="nav-link" href="{{url\_for('predict')}}">Gesture Prediction</a>

</li>

</ul>

</div>

</nav>

<div class="row justify-content-center" style="margin-top: 20px;">

<div class="card" style="width: 80%;">

<img class="card-img-top mx-auto" src="{{url\_for('static', filename='access-webcam.jpg')}}" alt="Card image cap" style="max-width: 40%; height: auto; padding-top: 10px;">

<div class="card-body">

<h5 class="card-title">Step I</h5>

<p class="card-text">First, you need to allow the application to access your webcam. The application uses this video stream from the webcam to capture and map hand gestures.</p>

</div>

</div>

</div>

<div class="row justify-content-center" style="margin-top: 20px;">

<div class="card" style="width: 80%;">

<img class="card-img-top mx-auto" src="{{url\_for('static', filename='upload-image.png')}}" alt="Card image cap" style="padding-top: 10px; max-width: 40%; height: auto; ">

<div class="card-body">

<h5 class="card-title">Step II</h5>

<p class="card-text">Second, you need to upload an image. You can do so by clicking on the upload image icon. This image will be modified according to the recognized hand gestures.</p>

</div>

</div>

</div>

<div class="row justify-content-center" style="margin-top: 20px; margin-bottom: 20px;">

<div class="card" style="width: 80%;">

<img class="card-img-top mx-auto" src="{{url\_for('static', filename='gestures.png')}}" alt="Card image cap" style="max-width: 40%; height: auto; padding-top: 10px;">

<div class="card-body">

<h5 class="card-title">Step III</h5>

<p class="card-text">Finally, you can run the deep learning model for gesture recognition! All you need to do is to click the `Predict` button on the page.</p>

</div>

</div>

</div>

<div class="d-flex justify-content-center">

<a id="back-to-top" href="#" class="btn btn-dark btn-lg back-to-top" role="button" style="margin-bottom: 20px;">Scroll to Top</a>

</div>

</body>

</html>

Landingpage.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

</head>

<body style="background-color: #e3e6e4;">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

<div class="container-fluid">

<div class="row flex-nowrap">

<div class="col-auto col-md-3 col-xl-2 px-sm-2 px-0 bg-dark">

<div class="d-flex flex-column align-items-center align-items-sm-start px-3 pt-2 text-white min-vh-100">

<a class="d-flex align-items-center pb-3 mb-md-0 me-md-auto text-white text-decoration-none">

<span class="fs-5 d-none d-sm-inline">Menu</span>

</a>

<ul class="nav nav-pills flex-column mb-sm-auto mb-0 align-items-center align-items-sm-start" id="menu">

<li>

<a href="{{url\_for('help')}}" class="nav-link px-0 align-middle">

<i class="fs-4 bi-people"></i> <span class="ms-1 d-none d-sm-inline">Help</span> </a>

</li>

<li>

<a href="{{url\_for('predict')}}" class="nav-link px-0 align-middle">

<i class="fs-4 bi-people"></i> <span class="ms-1 d-none d-sm-inline">Gesture Prediction</span> </a>

</li>

<li>

<a href="{{url\_for('signout')}}" class="nav-link px-0 align-middle">

<i class="fs-4 bi-people"></i> <span class="ms-1 d-none d-sm-inline">Sign Out</span> </a>

</li>

</ul>

<hr>

<div class="dropdown pb-4" data-toggle="tooltip" title="Account Settings">

<a href="{{url\_for('changepass')}}" class="d-flex align-items-center text-white text-decoration-none" id="dropdownUser1" \aria-expanded="false">

<img src="{{url\_for('static', filename='user-photo.jpg')}}" alt="user photo" width="30" height="30" class="rounded-circle">

<span class="d-none d-sm-inline mx-1">{{session.name}}</span>

</a>

</div>

</div>

</div>

<div class="col py-3" style="margin-top: 20px;">

<div class="card">

<h5 class="card-header">Welcome!</h5>

<div class="card-body">

<h5 class="card-title">Hi <small>{{session.username}}</small>! Weclome back to the application!</h5>

<p class="card-text">Number of accesses to the application(All Time): <small>{{session.number\_of\_access}}</small></p>

<p class="card-text">Latest Session: <small>{{session.last}}</small></p>

<a href="{{url\_for('help')}}" class="btn btn-primary">Get to know how to use the application</a>

</div>

</div>

<h4 style="margin-top: 40px;">

Technical Architecture

<small class="text-muted">Learn how different parts of our application interact!</small>

</h4>

<img src="{{url\_for('static', filename='technical-architecture.jpg')}}" class="mx-auto d-block" style="padding-top: 10px;">

</div>

</div>

</div>

</body>

</html>

Login.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

<style>

.bottom-left {

margin-top: 5%;

margin-left: 2%;

}

</style>

</head>

<body style="background-color: #e3e6e4;">

{% include 'message\_flash.html' %}

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

<div class="container-fluid" style="width: 80%; margin-top: 30px;">

<div class="card text-center" >

<div class="card-header">

<ul class="nav nav-tabs card-header-tabs">

<li class="nav-item">

<a class="nav-link active" href="{{url\_for('login')}}">Sign In</a>

</li>

<li class="nav-item">

<a class="nav-link" href="{{url\_for('register')}}">Sign Up</a>

</li>

</ul>

</div>

<div class="card-body">

<h5 class="card-title">Sign In to your Account</h5>

<form class="form-group" method="post" action="">

<div class="form-group" style="padding: 10px;">

<label>Email</label>

<input type="text" name="email" class="form-control" value="{{request.form.email}}">

</div>

<div class="form-group" style="padding: 10px;">

<label>Password</label>

<input type="password" name="password" class="form-control" value="{{request.form.password}}">

</div>

<p><input type="submit" value="Submit" class="btn btn-primary" style="margin-top: 20px;"></p>

</form>

</div>

</div>

</div>

<a type="button" class="btn btn-primary bottom-left" href="{{url\_for('about')}}">

<svg xmlns="http://www.w3.org/2000/svg" width="16" height="16" fill="currentColor" class="bi bi-arrow-return-left" viewBox="0 0 16 16">

<path fill-rule="evenodd" d="M14.5 1.5a.5.5 0 0 1 .5.5v4.8a2.5 2.5 0 0 1-2.5 2.5H2.707l3.347 3.346a.5.5 0 0 1-.708.708l-4.2-4.2a.5.5 0 0 1 0-.708l4-4a.5.5 0 1 1 .708.708L2.707 8.3H12.5A1.5 1.5 0 0 0 14 6.8V2a.5.5 0 0 1 .5-.5z"/>

</svg> Go Back</a>

</body>

</html>

Message\_flash.html

{% with messages = get\_flashed\_messages (with\_categories=true) %}

{% if messages %}

{% for category, message in messages %}

<div class="alert alert-{{ category }}">{{ message }}</div>

{% endfor %}

{% endif %}

{% endwith %}

{% if error %}

<div class="alert alert-danger">{{error}}</div>

{% endif %}

{% if msg %}

<div class="alert alert-success">{{msg}}</div>

{% endif %}

Prediction.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

</head>

<body style="overflow-x: hidden; background-color: #e3e6e4;">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

{% include "message\_flash.html" %}

<nav class="navbar navbar-expand-lg navbar-dark bg-dark" style="padding: 10px">

<a class="navbar-brand">{{session.username}}'s Account</a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarText" aria-controls="navbarText" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse" id="navbarText">

<ul class="navbar-nav mr-auto">

<li class="nav-item">

<a class="nav-link" href="{{url\_for('landingpage')}}">Home</a>

</li>

<li class="nav-item">

<a class="nav-link" href="{{url\_for('help')}}">Help</a>

</li>

</ul>

</div>

</nav>

<div class="card mx-auto" style="width: 80%; margin-top: 10%;">

<form class="form-group" action="predict" method="post" enctype="multipart/form-data">

<ul class="list-group">

<li class="list-group-item">

<b>Step I: Access Webcam</b>

<p>Click the checkbox below to enable the application to access your camera.

<div class="form-check">

<input class="form-check-input" type="checkbox" value="checked" name="video" id="video">Allow this application to access my camera

</div>

</p>

</li>

<li class="list-group-item">

<b>Step II: Upload Image</b>

<p>Upload an image from your computer to the application by clicking on the `Choose File` buttom below.</p>

<input type="file" class="form-control" id="userfile" name="userfile" style="margin-top: 10px; margin-bottom: 10px; width: 30%;"/>

</li>

<li class="list-group-item mx-auto"><p><input type="submit" value="Predict!" class="btn btn-primary" style="margin-top: 20px;"></p></li>

</ul>

</form>

</div>

</body>

</html>

Registration.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css">

<title>A Gesture Based Tool for Sterile Browsing of Radiology Images</title>

<style>

.bottom-left {

margin-top: 2%;

margin-left: 2%;

}

</style>

</head>

<body style="background-color: #e3e6e4">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"></script>

{% from "registration\_form\_helper.html" import render\_field %}

{% include "message\_flash.html" %}

<div class="container" style="width: 80%; margin-top: 30px;" >

<div class="card">

<div class="card-header text-center" style="font-weight: bold;">

Registration Page

</div>

<form method="post" action="">

<div class="form-group" style="padding: 10px;">

{{render\_field(form.name, class="form-control")}}

</div>

<div class="form-group" style="padding: 10px;">

{{render\_field(form.email, class="form-control")}}

</div>

<div class="form-group" style="padding: 10px;">

{{render\_field(form.username, class="form-control")}}

</div>

<div class="form-group" style="padding: 10px;">

{{render\_field(form.password, class="form-control")}}

</div>

<div class="form-group" style="padding: 10px;">

{{render\_field(form.confirm, class="form-control")}}

</div>

<div class="card-footer text-center">

<p><input type="submit" value="Submit" class="btn btn-primary" style="margin-top: 20px;"></p>

</div>

</form>

</div>

</div>

<a type="button" class="btn btn-primary bottom-left" href="{{url\_for('about')}}">

<svg xmlns="http://www.w3.org/2000/svg" width="16" height="16" fill="currentColor" class="bi bi-arrow-return-left" viewBox="0 0 16 16">

<path fill-rule="evenodd" d="M14.5 1.5a.5.5 0 0 1 .5.5v4.8a2.5 2.5 0 0 1-2.5 2.5H2.707l3.347 3.346a.5.5 0 0 1-.708.708l-4.2-4.2a.5.5 0 0 1 0-.708l4-4a.5.5 0 1 1 .708.708L2.707 8.3H12.5A1.5 1.5 0 0 0 14 6.8V2a.5.5 0 0 1 .5-.5z"/>

</svg> Go Back</a>

</body>

</html>

Registration\_form\_helper.html

{% macro render\_field(field) %}

{{ field.label }}

{{ field(\*\*kwargs)|safe }}

{% if field.errors %}

{% for error in field.errors %}

<span class="help-inline" style="color:red">{{ error }}</span>

{% endfor %}

{% endif %}

{% endmacro %}