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import numpy as np

import os

from PIL import Image

from flask import Flask, request, render_template, url_for

from werkzeug.utils import secure_filename, redirect

from gevent.pywsgi import WSGIServer

from keras.models import load_model

from keras.preprocessing import image

from flask import send_from_directory


UPLOAD_FOLDER = 'C:/Users/Dell/PycharmProjects/A-novel-method-for-digit-recognition-system/flask_app/uploads'


app = Flask(__name__)

app.config['UPLOAD_FOLDER'] = UPLOAD_FOLDER


model = load_model("mnistCNN.h5")


@app.route('/')

def index():

    return render_template('index.html')


@app.route('/predict', methods=['GET', 'POST'])

def upload():

    if request.method == "POST":

        f = request.files["image"]

        filepath = secure_filename(f.filename)

        f.save(os.path.join(app.config['UPLOAD_FOLDER'], filepath))
```

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upload_img = os.path.join(UPLOAD_FOLDER, filepath)

img = Image.open(upload_img).convert("L") # convert image to monochrome
img = img.resize((28, 28)) # resizing of input image


im2arr = np.array(img) # converting to image
im2arr = im2arr.reshape(1, 28, 28, 1) # reshaping according to our requirement


pred = model.predict(im2arr)


num = np.argmax(pred, axis=1) # printing our Labels


return render_template('predict.html', num=str(num[0]))


if __name__ == '__main__':
    app.run(debug=True, threaded=False)
```