

# Brain Tumor Detection System

#5 View of Progress as of 4/17/2024

# Last view 4/3/2024

***In last view of progress***, the following was accomplished.

- Enhancement of Model Accuracy to 97.17%.
- Started the development of of web interface.

# Promised tasks to be completed by 4/17/2024

- Development of web interface and final adjustments
- ChatGPT-API implementation to give an advice regarding the prediction result.

# Development of web interface and final adjustments

DONE, by adding an image to the website and adding a welcome message

**Welcome to The Brain Tumor Detection System**



Choose File no0.jpg

Upload and Predict

# ChatGPT-API implementation to give an advice regarding the prediction result.

Under the implementation because of problems I am still facing in configuring the API Key and how to be implemented in the code. I am still under the process, and watching tutorials in how to be implemented, many hours spent until now, this should be done and function correctly by 4/22/2024/

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

```
def predict():
```

```
    if 'file' not in request.files:
```

```
        return jsonify({'error': 'No file part'}), 400
```

```
    file = request.files['file']
```

```
    if file.filename == '':
```

```
        return jsonify({'error': 'No selected file'}), 400
```

```
    img = cv2.imdecode(np.frombuffer(file.read(), np.uint8), cv2.IMREAD_GRAYSCALE)
```

```
    img = cv2.resize(img, (64, 64))
```

```
    img = img / 255.0
```

```
    img = img.reshape(1, 64, 64, 1)
```

```
    prediction = model.predict(img)
```

```
    result = 'Positive' if prediction[0][0] > 0.5 else 'Negative'
```

```
    # Generating advice based on the result using AI through OpenAI API KEY
```

```
    advice = generate_advice(result == 'Positive')
```

```
    return jsonify({'prediction': result, 'advice': advice})
```

```
def generate_advice(has_tumor):
```

```
    prompt = "You have been diagnosed with a brain tumor. What should you do next?" if has_tumor else "Your brain scan did not show a tumor"
```

```
    try:
```

```
        response = requests.post(
```

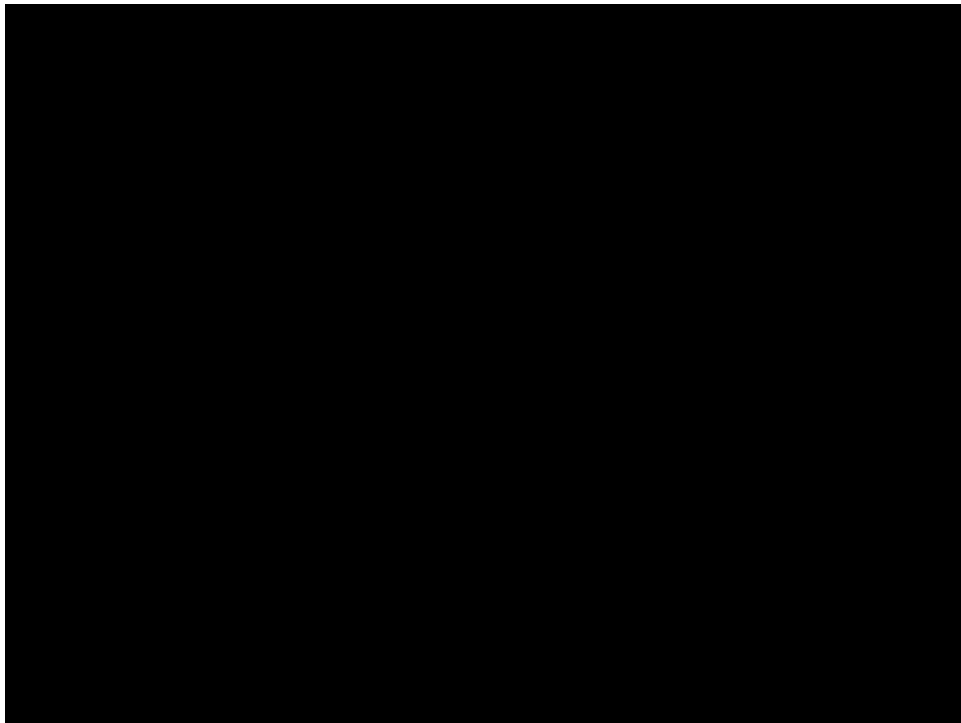
```
            "https://api.openai.com/v1/engines/text-davinci-003/completions",
```

```
            headers={"Authorization": f"Bearer {os.getenv('sk-6[REDACTED]M1c')}"},
```

```
            json={
```

```
                "prompt": prompt,
```

DEMO



99% DONE → FINAL TASKS: to be completed by  
4/22/2024

- Final presentation preparation
- Updating github with all new updates about the project