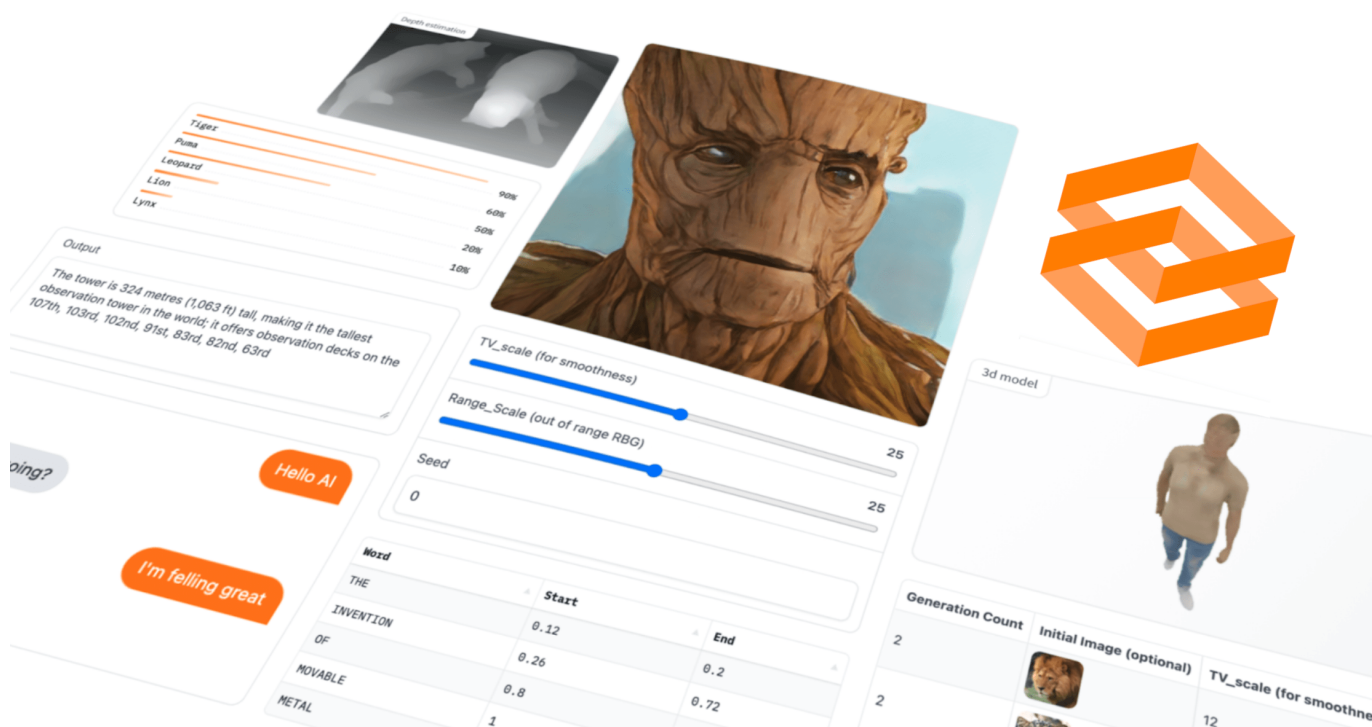# Integrate Gradio into Streamlit

Tinxu Jia PhD

Gradio serves as an excellent tool for crafting AI demonstrations swiftly. However, it lacks capabilities for user registration and management, and its web deployment isn't particularly convenient. On the other hand, Streamlit is a web development package tailored for user management and effortless deployment. By integrating Gradio with Streamlit, we can harness Gradio's efficient development alongside Streamlit's seamless deployment capabilities.

Here is an example showing how to do this wonderful thing!

```python
from gradio import Interface, Textbox

def greet(name):
    return "Hello, " + name + "!"

iface = Interface(
    fn=greet,
    inputs=Textbox(label="Name"),
    outputs="text"
)

iface.launch(share=False)
```

Here is the Streamlit code:

```python
import streamlit as st
import time
# Display Streamlit content
st.title("Streamlit App with Gradio Integration")

# Define the Gradio interface
gradio_interface_code = """
from gradio import Interface, Textbox

def greet(name):
    return "Hello, " + name + "!"

iface = Interface(
    fn=greet,
    inputs=Textbox(label="Name"),
    outputs="text"
)

iface.launch(share=False)
"""

# Save the Gradio interface code to a Python file
#with open("gradio_interface.py", "w") as file:
#    file.write(gradio_interface_code)

# Start a local server to host the Gradio interface
# Make sure you have Gradio installed (`pip install gradio`) to run this
command
import subprocess
aaa = subprocess.Popen(["gradio", "gradio_interface.py"])

# Replace the Gradio interface URL with your generated share link
gradio_interface_url = "http://127.0.0.1:7860/"  # Example URL

# Load the Gradio interface using an iframe
st.write(f'<iframe src="{gradio_interface_url}" width="800" height="600">
</iframe>',
         unsafe_allow_html=True)
```

Save it as main.py This run: streamlit run main.py.

On the web browser input http://127.0.0.1:7860, you will see:

Streamlit App with Gradio Integration

Name		output
Tom	🟩	Hello, Tom!

Clear	Flag

Submit