

Final Project

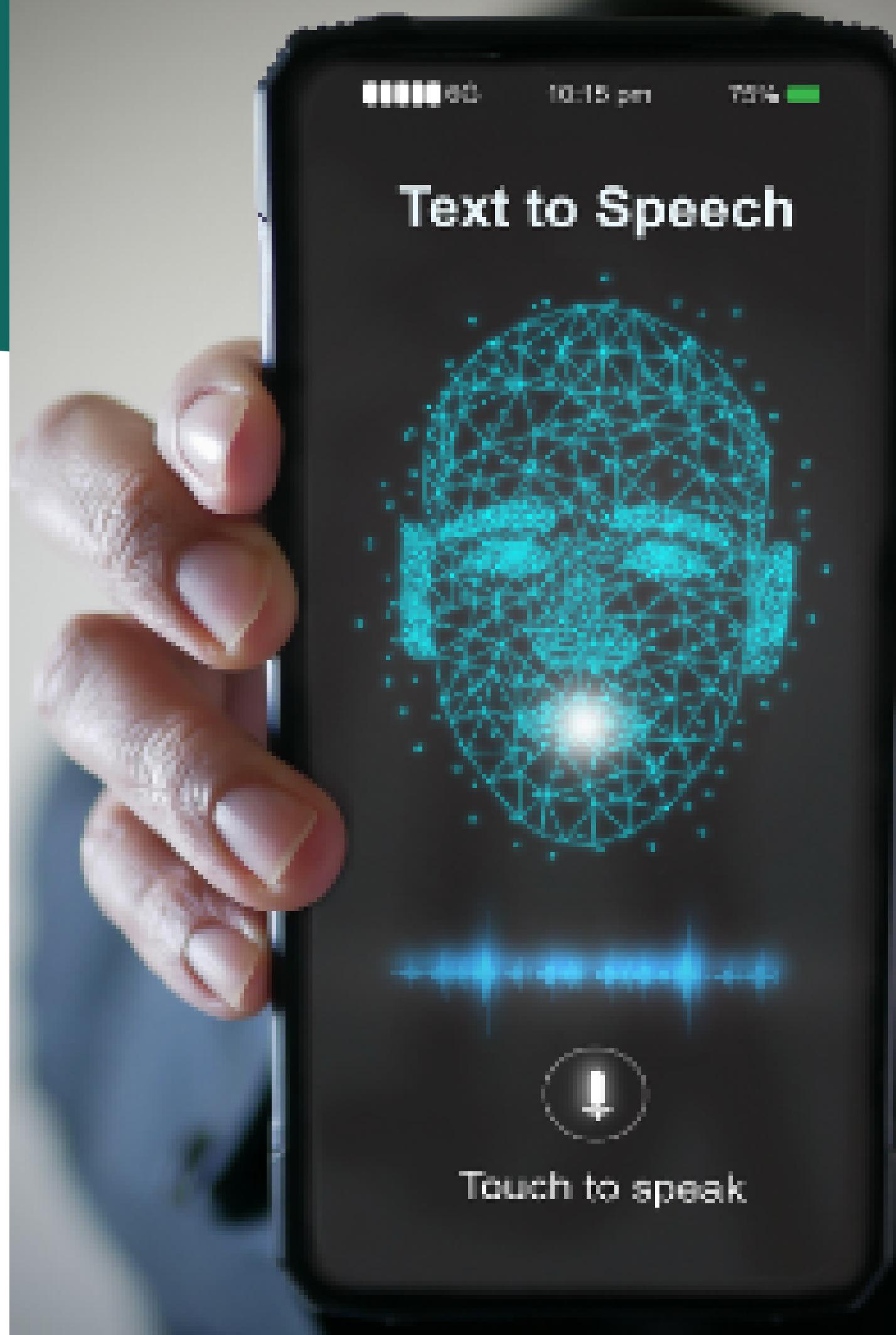
Generating audio from text



Hugging Face

Overview

- Project Objectives
- Previous Work
- Justification for Choice of Models and Pipelines.
- Pipeline Implementation
- Result
- Github repository
- Link to the Hugging Face space



Project Objectives

Text-to-Speech (TTS) with Male/Female Voice Support in English & Arabic Using Python, Gradio, and Hugging Face APIs

01



Objective 01

Build a web app that converts user-inputted text in English or Arabic into speech, with selectable male or female voices

02



Objective 02

Provide a user-friendly web interface for converting text to speech in both English and Arabic.

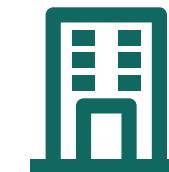
03



Objective 03

Allow users to select between male and female voice options

04



Objective 04

Make the solution easily deployable and accessible via Hugging Face Spaces.

Previous Work

```
[ ] # Import necessary libraries
from transformers import pipeline
import gradio as gr

# Initialize the summarization pipeline
summarizer = pipeline("summarization", model="facebook/bart-large-cnn")
```

```
[ ] # Define a function for summarization
def summarize_text(text):
    summary = summarizer(text, max_length=50, min_length=25, do_sample=False)
    return summary[0]['summary_text']
```

Previous Work

```
[1]: # Create a Gradio interface
iface = gr.Interface(
    fn=summarize_text,
    inputs="text",
    outputs="text",
    title="Text Summarizer",
    description="Enter text to get a summarized version using a pre-trained model from Hugging Face."
)

# Launch the Gradio interface
iface.launch()
```

Previous Work

share link expires in 72 hours. For free permanent hosting and GPU upgrades, run `gradio deploy` from Terminal to deploy to Spaces (<https://>

Text Summarizer

Enter text to get a summarized version using a pre-trained model from Hugging Face.

text

Machine learning (ML) is a branch of artificial intelligence (AI) and computer science that focuses on the using data and algorithms to enable AI to imitate the way that humans learn, gradually improving its accuracy.

Clear

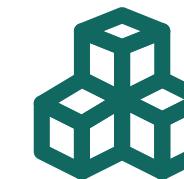
Submit

output

Machine learning (ML) is a branch of artificial intelligence (AI) and computer science. ML focuses on the using data and algorithms to enable AI to imitate the way that humans learn.

Flag

Justification for Choice of Models and Pipelines.



Support for Multiple Languages (English and Arabic)



Voice Customization (Male and Female Voices):



Gradio for User-Friendly Interface



Project Implementation and the result

Conclusion

This project successfully demonstrates a scalable, multilingual TTS system with gender-specific voice options. With integration into Hugging Face, the app is accessible and easy to use.

Resource

GitHup Repository

<https://github.com/Wajd915/FinalProject>

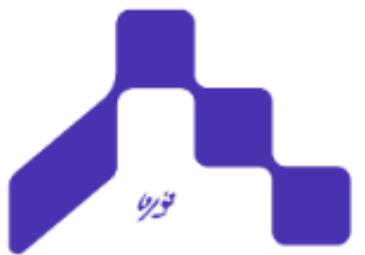


Link to Hugging Face space

Final Project :

<https://huggingface.co/spaces/Wajd915/FinalProject>





THANK TOU

For watching this presentation

Wajd Alosaimi

