

Tri-Find

Voice, Text, and Image Search Engine



Meet Our Team



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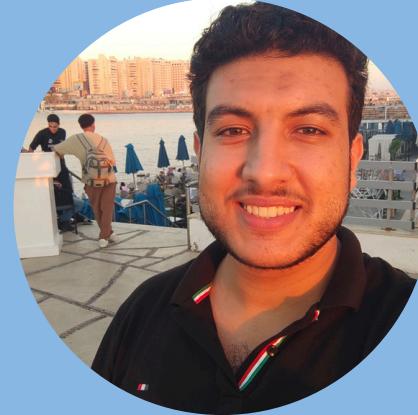
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Business Overview

- Problem with traditional e-commerce search.
- Users struggle to express intent.
- Businesses lose visibility and sales.
- TriFind enables search by text, image, or voice.
- Goal: make search natural, accurate, and human-like.

Challenges

- Understanding intent across modalities.
- Aligning image, text, and speech meanings
- Data inconsistency and scalability
- Real-time performance
- Smooth, intuitive user experience



Technologies

- Multimodal AI for unified understanding.
- Voice-to-text transcription.
- Image and text similarity search.
- Interactive web interface.
- Feedback and sentiment analysis.



Workflow

- User inputs (text / image / voice).
- Data preprocessing and embedding.
- Similarity search.
- Result retrieval and ranking.
- Feedback collection and improvement.



kaggle.com/code/abdelazizelsayed09/product-visual-search-engine-fd2bc0/edit/run/267001808

Product Visual Search engine fd2b...

Draft saved

File Edit View Run Settings Add-ons Help

+ X ☐ 📄 ⌂ ⌂ Run All Code Draft Session (2h:0m) Notebook

```
outputs=feedback_output
)
# Launch the interface
iface.launch(share=True, debug=True)
else:
    print("Cannot launch Gradio interface. Essential components are not loaded. Please check the setup script.")
```

Launching Gradio Interface...
model.safetensors: 100% 50.6M/50.6M [00:00<00:00, 76.1MB/s]

▶ 0:01 / 0:01

* Running on local URL: http://127.0.0.1:7860
* Running on public URL: https://8b59b0bf6510a98a64.gradio.live

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run "gradio deploy" from the terminal in the working directory to deploy to Hugging Face Spaces (<https://huggingface.co/spaces>)

Multimodal Product Search

Search for products using text, image, or speech. Ensure you have placed images in the 'data_images' directory for indexing before running the search.

Text Query (Optional)

Record Audio Query (Optional)

Record

Notebook

Share

Save Version 1

Input

+ Add Input

Upload

DATASETS

fashion-product-images-dataset

Output (14.1GiB / 19.5GiB)

- /kaggle/working
- data_images
 - image_search.index
 - image_search_metadata.json
 - user_feedback.txt

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Session options

Schedule a notebook to run

Code Help

Future Work

- Add video-based search.
- Expand product datasets.
- Personalize search results.
- Mobile app version of TriFind.





Thank you!

Any Questions?