# SynthMatix

By STEMG (Ibrahim Patel)





# Why SynthMatix?

- Growing demand for clean and sustainable energy
- Current materials for renewable energy sources are limited in efficiency, durability, and cost-effectiveness
- SynthMatix generates insightful text descriptions of innovative materials
- •Enhanced user understanding through interactive Image Generation.

#### How it works?

SynthMatix invites users to input specific material characteristics they seek.

Utilizing Gemini and GPT-3.5 Turbo, the app generates an indepth text description of the material and its' application.

The app will integrate visual representations of the materials using DALL-E, enriching the user's conceptualization process.

### Demo











Al-Driven Material Design

Open

S

# Market Scope

- •TAM: The global renewable energy market is expected to reach over two trillion USD by 2030. [1]
- •SAM: The global advanced materials market size was estimated at USD 61.35 billion in 2022 and it is expected to hit around USD 112.7 billion by 2032. [2]
- •Target market: Researchers, engineers, students, and enthusiasts interested in designing and learning about new materials for renewable energy sources.



#### Revenue Streams



Subscription models for access to advanced features.



Customization services for industry-specific needs.



Partnerships with other technology and service providers.



# Competitors and USP

- Matmatch, Materials Project, and Materialize.X provide material information and design tools for various applications.
- SynthMatix as an interactive AI assistant to design materials for sustainable applications.



# Prospects

- •Material generation and visualization capabilities using image generation models.
- •Inspiring and empowering users to create sustainable solutions for the future,
- •Advancing the fields of material science and renewable energy.

#### References

- [1] https://www.statista.com/statistics/1094309/renewable-energy-market-size-global/
- [2] https://www.precedenceresearch.com/advanced-materials-market

# THANK YOU!