



CHORDSHOT

Transform your images into a harmonious soundscape
where every picture tells its own musical story



INTRODUCTION

Chordshot is an AI-powered tool that generates personalized 30-second background music based on the mood and theme of any given image. The system analyzes the visual content of the image and generates music that complements the image's emotional tone.

Project Goal : Create an innovative tool that combines image recognition and music generation to provide copyright-free soundtracks reflecting the emotional tone of images, ensuring seamless use for both personal and commercial purposes.



WHY CHORDSHOT?

- Content Creation (YouTubers, Streamers, and Video Editors)
- Personalized Experiences (Galleries, Museums, or Exhibitions)
- E-commerce Platforms
- Storytelling and Interactive Media
- Customer Support or Interactive Chatbots





WORKFLOW

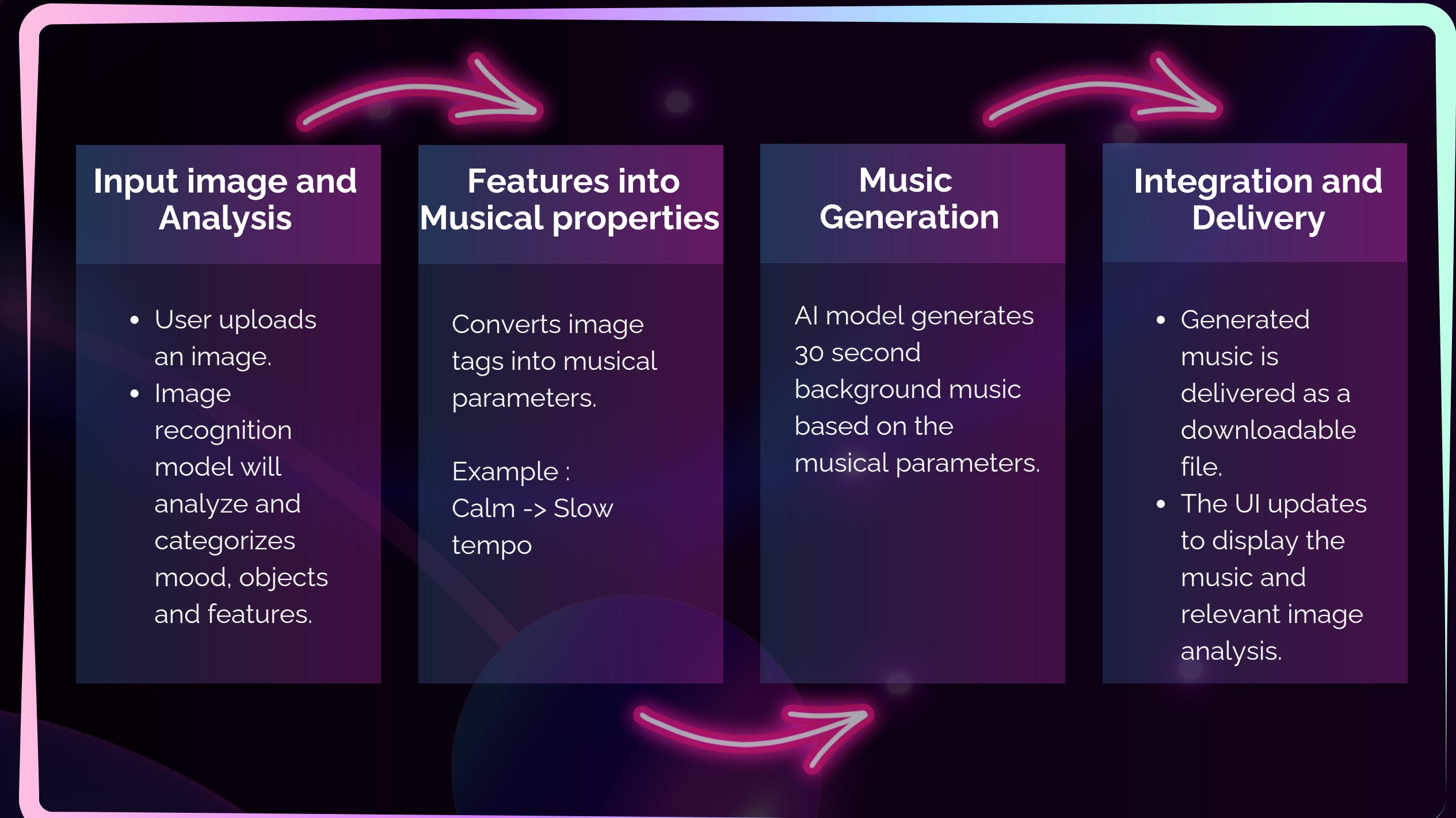




IMAGE INPUT & ANALYSIS



STEP 1

Accepts an image from UI and starts analyzing it

STEP 2

Use pre-trained model to recognize objects and scenes

STEP 3

Extracts the features - dominant colors, objects and settings to infer the mood

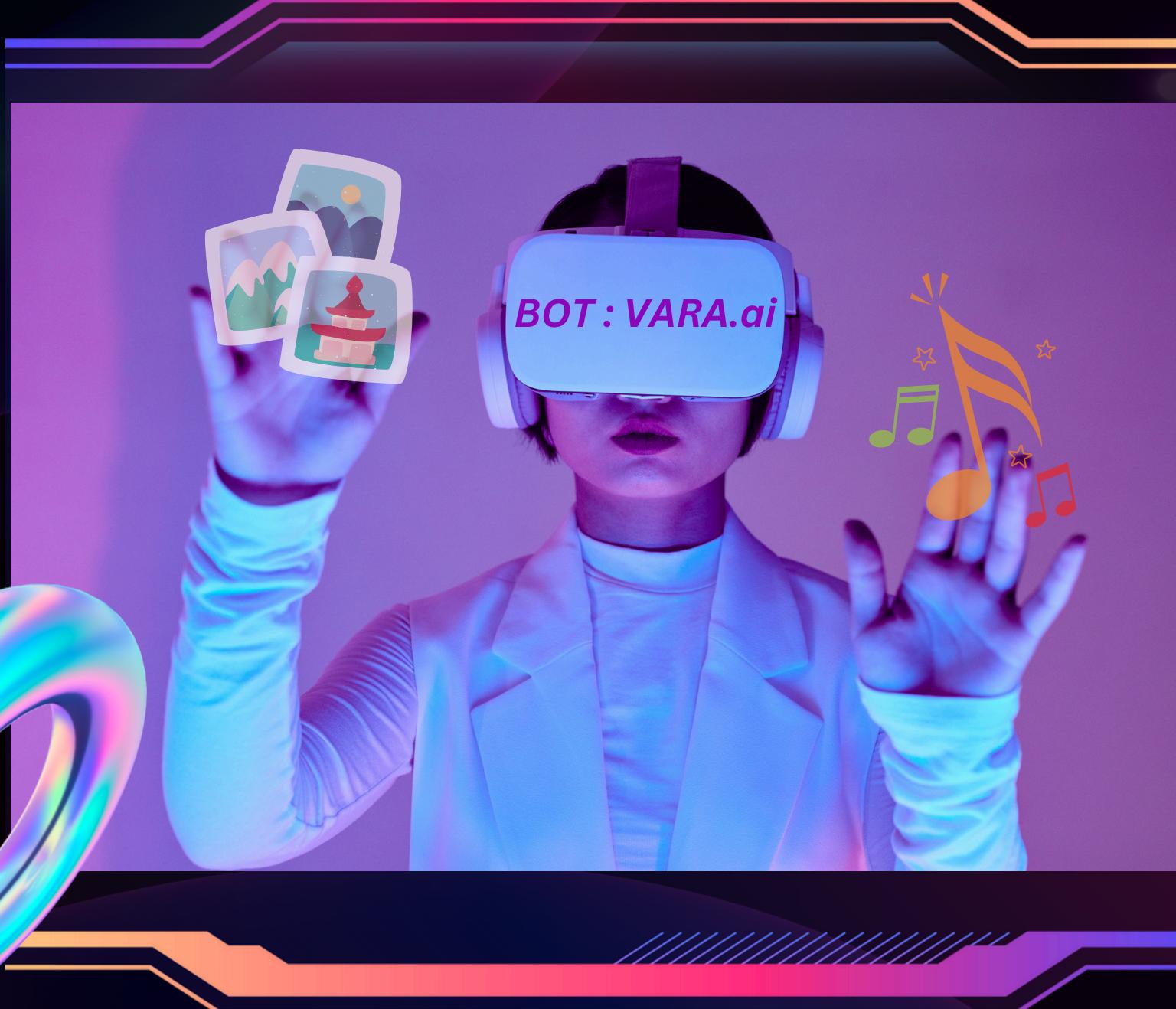


IMAGE FEATURES TO MUSIC PARAMETERS

Mapping between image tags and musical properties:

- Mood → Scale/Tempo: Calm → Slow tempo, Happy → Major scale.
- Objects → Instruments: Ocean → Strings, Sunset → Piano.

Music parameters, e.g., { tempo: 60, scale: "minor", instruments: ["piano", "strings"] }

End result: stored as JSON or database file for easy retrieval



MUSIC GENERATION



AI MUSIC GENERATOR

AI music generation framework (e.g., Magenta or MuseNet) to input music parameters like tempo, scale, and instruments.

OUTPUTS AUDIO

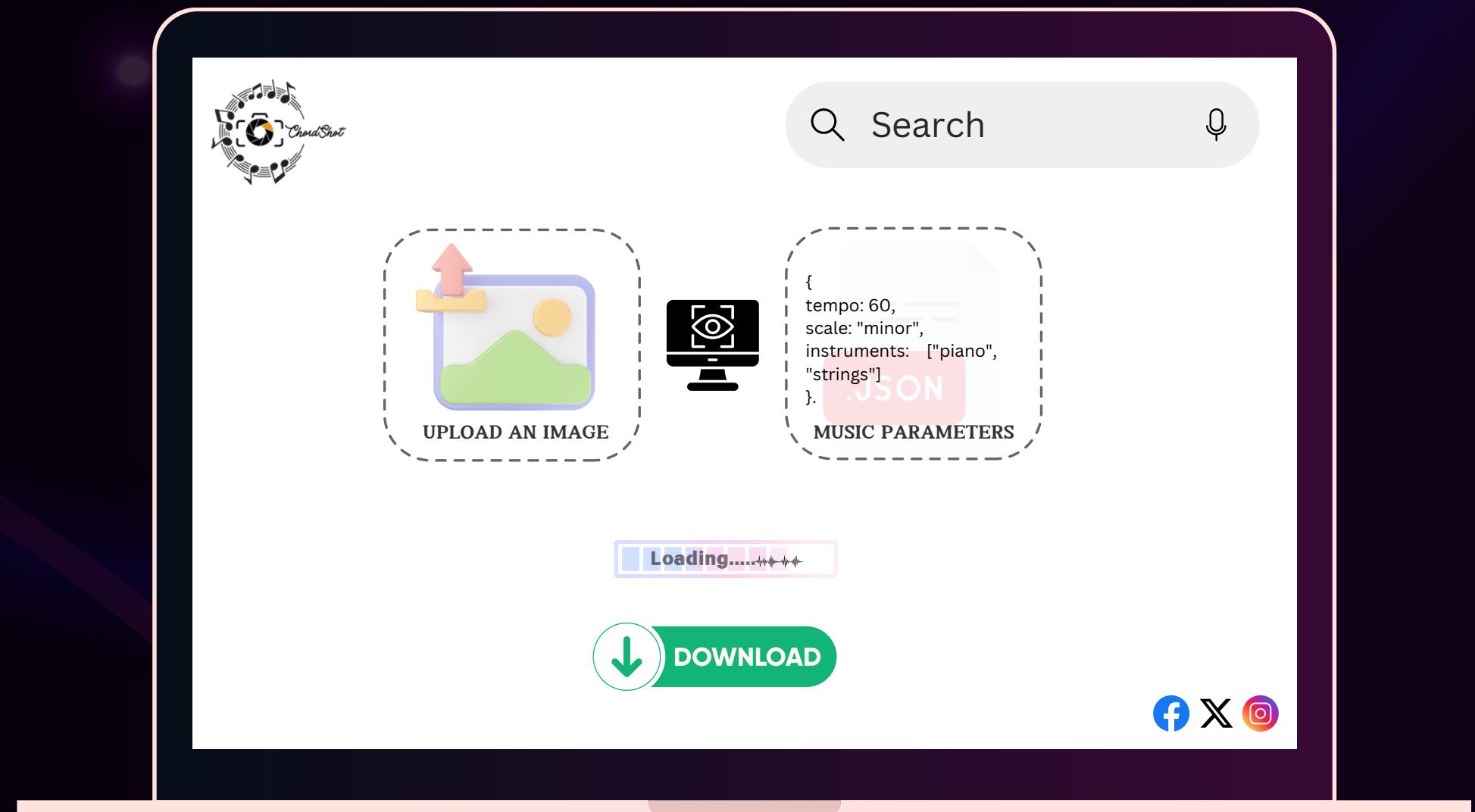
Generate music as a 30-second audio file (e.g., output_music.wav) directly by converting the MIDI output to WAV/MP3 using a synthesizer.





INTEGRATION AND DELIVERY

- FastAPI or Flask to handle image input, process images into music parameters, and trigger the music generation module.
- Build a simple interface for users to upload images and access a download link for the generated music.
- Save input images, parameters, and audio files in a folder for reference.





TECH STACK



Image Recognition & Analysis

Frameworks: TensorFlow / PyTorch
Libraries: OpenCV (image processing), Pillow (image manipulation)

Music Generation

AI Music Models: Magenta (TensorFlow-based music generation)

Audio Processing

Audio Processing: MIDIUtil (MIDI data), pydub (audio file conversion)

Front end

Web Development: HTML / CSS (structure, styling)
JavaScript (interactivity)

Back end

Web Framework: FastAPI or Flask (API requests, music generation)
JSON (image-to-music mappings)



CASE STUDIES

Magenta

Open-source project by Google that uses AI for generating music and art.

DeepAI

Developed a system that converts visual inputs (images) into music using CNNs for image processing and generative models for sound creation.

AIVA: AI Composer

composer that generates music based on deep learning models trained on classical music



THANK YOU!

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