

APHELION MUSIC

MUSIC GENRE CLASSIFICATION SYSTEM

We are a Mumbai based startup in the Music Industry aiming to redefine the music classification in India, enabling recommendation and discovery engines to be optimized and personalized for each individual user



DISCUSSION FLOW

THE STARTUP DILEMMA

Understanding the problem

OUR PROCESS

Utilizing a data-driven approach

MODEL IMPLEMENTATION

Final product



Understanding The Problem



ANY GENERIC MUSIC
STREAMING PLATFORM IS
ESTIMATED TO HAVE ABOUT
70 M+ SONGS. THERE IS NEED
TO AUTOMATE THE SYSTEM.

Market Analysis

COMPETITORS

Youtube Music, Spotify, Amazon Prime Music, Deezer

MARKET SIZE

USD 17.10 Billion in 2017, expected to reach USD 37.61 Billion by 2027, CAGR of 8.2% over the forecast period.



Utilizing a data-driven approach

Our software classifies the given music tracks into their respective music genres. We also engineered mood classification into our product. This enables recommender systems to group similar music and makes the musical journey of every user extraordinary!

DATA INPUT

DATA FOR ALL RELEVANT
FEATURES UNDER STUDY

DATA ANALYSIS

USING ESTABLISHED
TECHNIQUES TO PERFORM
DATA ANALYSIS

FINDING PATTERNS

FITTING MODEL TO DATA

PREDICTION

USING TRAINED MODEL
TO PREDICT STARTUP
SUCCESS

PREDICTION MODELS

ML (MACHINE LEARNING)

Machine learning algorithms like SVM, Random forest, etc are used with the optimal parameters for them,

CNN (CONVOLUTIONAL NEURAL NETWORK)

CNNs are regularized versions of multilayer perceptrons where each neuron in one layer is connected to all neurons in the next layer

RNN (RECURRENT NEURAL NETWORK)

Connections between nodes form a directed or undirected graph along a temporal sequence

LSTM (LONG SHORT TERM MEMORY)

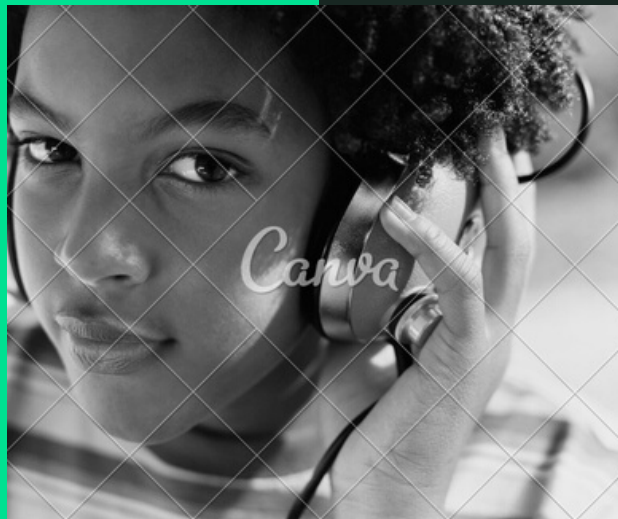
Artificial recurrent neural network (RNN) architecture with feedback connections

DATA AVAILABLE



70 M+ SONGS

Music Libraries



MFCC AND FEATURES
EXTRACTED

200+ Features



TAGGED DATASETS

Big Datasets

Test Accuracies we achieve

ML	CNN	ANN	LSTM
85.10	90.10	70.20	88.20

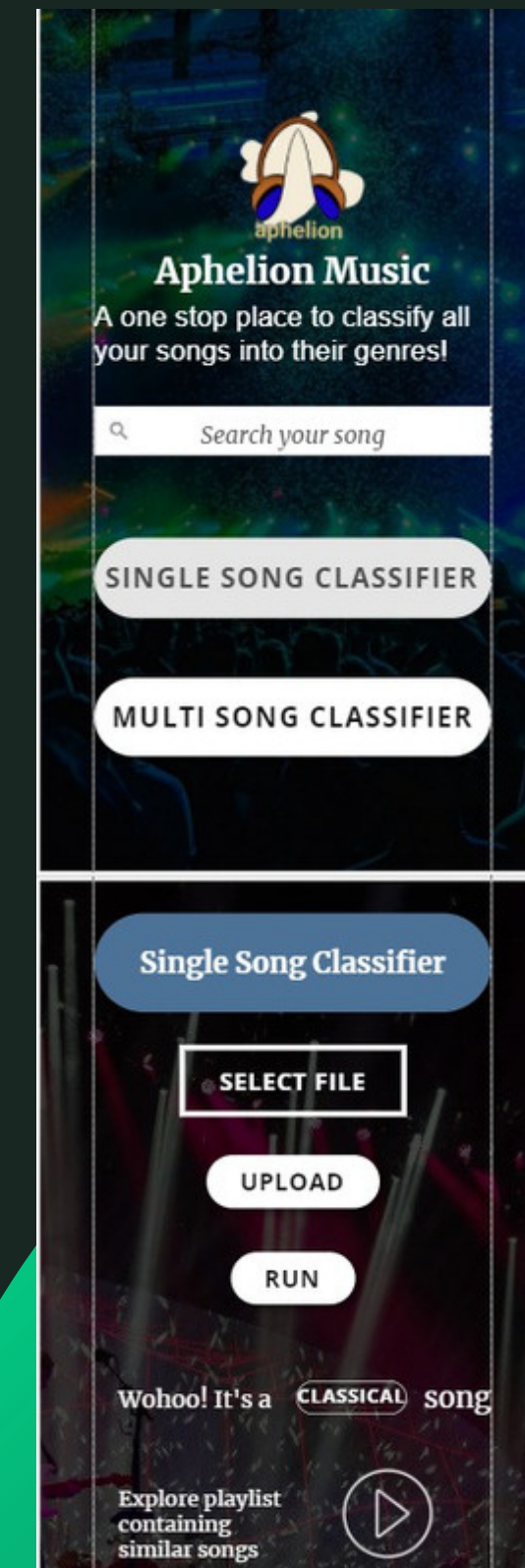
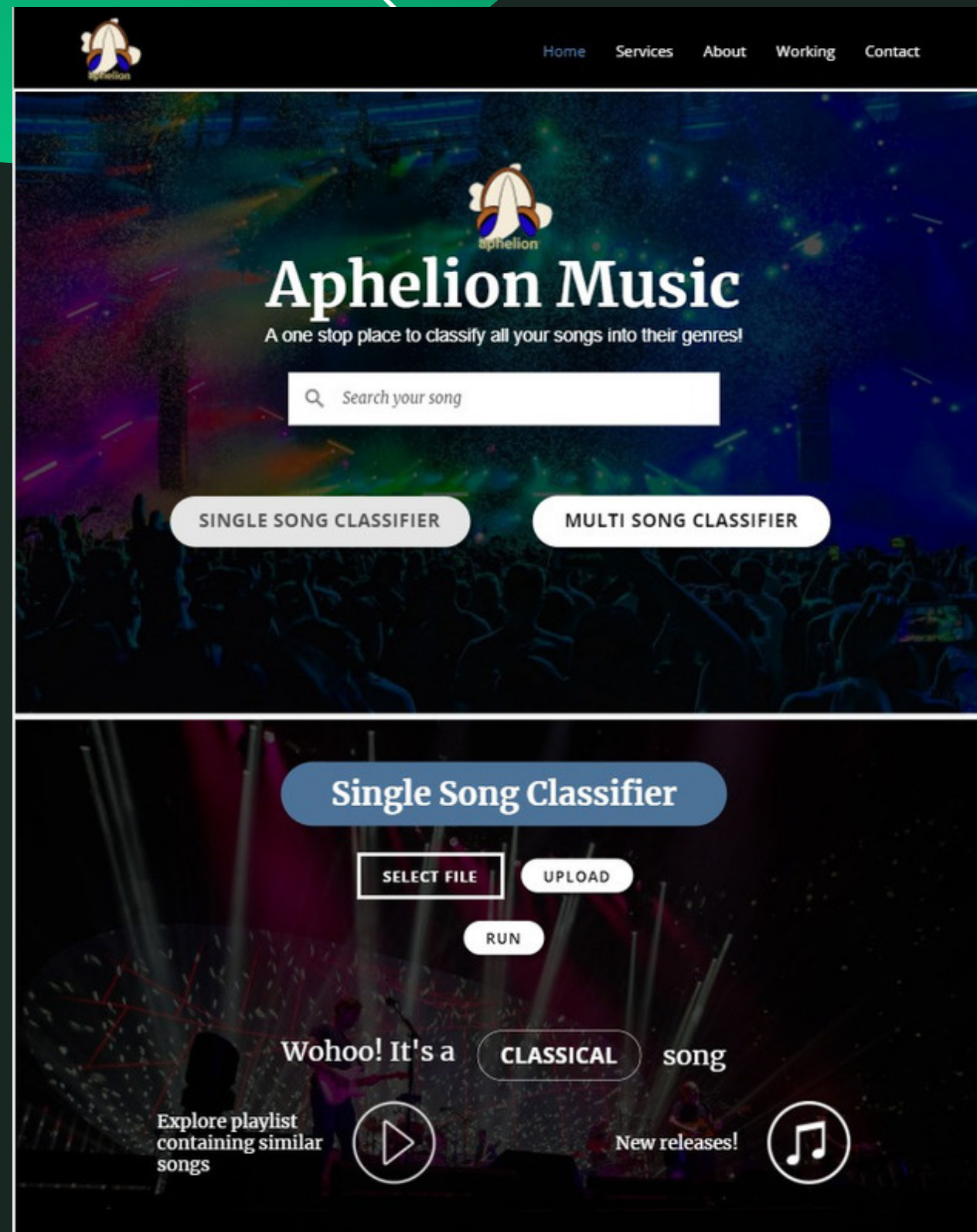




FINAL PRODUCT

APHELION MUSIC
PLATFORM

OUR PROPOSED INTERFACE ON DESKTOP & MOBILE



Key App Features



High Accuracy
(>90%) and clarity



Upload and Run
Friendly Interface



Non-redundant
feature covering
large data



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FOR
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