

# lofi focus

A chrome extension that generates music based upon the webpage you are on use our basic form below to generate music!

# Benefits of LoFi Music

- Improves focus and concentration : The chill, repetitive beats help tune out distractions and keep you in a flow state. The lack of jarring changes also avoids breaking focus.
- Reduces stress and anxiety : The ambient sounds lower heart rate and have a calming effect on the mind and body.
- Enhances productivity : By helping you focus and relax, lo-fi enables you to work and study more efficiently for longer periods.
- Sets a peaceful mood : The mellow, nostalgic sounds induce feelings of tranquility and relaxation.
- Provides unobtrusive background music : As there are no attention-grabbing vocals, it subtly enhances an environment without being distracting.
- Inspires creativity : The simple compositions are unintimidating and let your mind wander productively.
- Helps with sleep and relaxation : The soothing tracks are great for relaxing the body and quieting the mind before sleep.
- Fosters pleasant memories and nostalgia : For many, it evokes nostalgia from times spent studying or relaxing to music.

# LoFi Focus

AI is moving away from basic textual generations to a more multi-modal with visual and now audio creations.

**LoFi Focus personalizes and generates lo-fi music optimized for your workflow.**

<https://lofifocus.kbve.com/#>



Songs Generated using facebook/musicgen-small:

<https://storageapi.weboclave.com/hackathon/77896957728656.wav>

<https://storageapi.weboclave.com/hackathon/89748590695969.wav>

<https://storageapi.weboclave.com/hackathon/32174022274771.wav>

# Lofi Focus Ai Music Generator

A chrome extension that generates music based upon the webpage you are on Use our basic form below to generate music!

Get Extension

Test Form

# Features

- Analyzes webpage content
- Generates a unique, customized lofi track for that page using AI music generation
- Allows users to adjust volume, pause, start, play, re-generate Lo-Fi Music

## Implementation

- Built as a Chrome browser extension for ease of use
- Uses JavaScript content scripts to analyze webpages and play lofi audio
- Leverages AudioCraft's MusicGen AI model to generate the lofi tracks
- Polished UI allows easy control over the music generation

## Goals

- Help people focus and be more productive when reading on the web
- Provide an ambient audio environment that blocks distracting sounds
- Make reading more enjoyable and relaxed through chill tunes
- Give users more options to customize their browsing experience
- Train Custom LoFi Model

# Our Custom Model

- Collected dataset of original, non-copyright lofi music
- Split songs into 30 sec clips paired with text prompts (e.g. "mellow piano and vinyl crackle")
- Formatted dataset into .wav and .txt files for musicgen\_trainer
- Ran trainer on dataset using MusicGen-Small for 100 epochs
- Fine-tuned model on lofi music with audio/text pairs
- Saved best performing checkpoint after training finished
- Result: A MusicGen variant specialized in generating original lofi from text prompts

Custom Trained LoFi Model: [https://storageapi.webenclave.com/hackathon/lm\\_final.pt](https://storageapi.webenclave.com/hackathon/lm_final.pt)

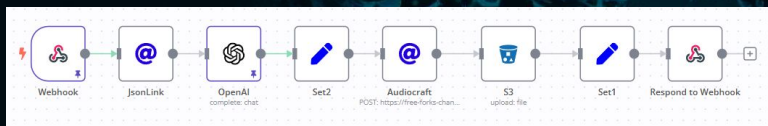
Custom Model with Multi-Band Diffusion:

<https://storageapi.webenclave.com/hackathon/1693443008707.wav>

<https://storageapi.webenclave.com/hackathon/1693446342975.wav>

<https://storageapi.webenclave.com/hackathon/1693446441558.wav>

# Chrome Extension for LoFi Fine-tuned MusicGen



LoFi Focus sends current URL to N8N workflow

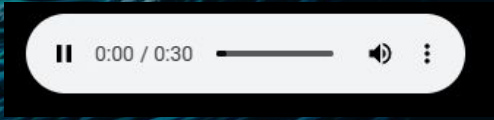
User: Opens extension and visits webpage

Generate: ChatGPT generates personalized lofi music prompts

Flask API  
Audiocraft

LoFi Focus plays the generated track

```
message
role : assistant
content : energetic lofi beat to boost productivity with upbeat chords, lively drums, and energizing vocal samples
```



# >>> Market by 2025

Total Market 100M Users

Radio Stations, Spotify, YouTube

100 M Users

20M+ Users

1 M Users

Serviceable Market 20M+ Users

Enterprise Corporations, VC Firms, Private Equity,  
Angel Investors, Start-Ups, Financial Analysts

Services Obtainable 1M+ Users

Consulting agencies, Market Analysts, LLC  
Formation, SaaS for Start-Ups, Design Studios,  
etc.



# Technologies Used

- Audiocraft Music Generation
- Audiocraft Multi-Band Diffusion
- Audiocraft Audio Write
- ChatGPT 3.5-turbo
- JsonLink
- Local Tunnel
- ElevenLabs AI Voice Generation
- Min.io S3 Storage

- Python - Poetry - Flask API
- Node.js - Yarn
- HTML, CSS (Tailwind)
- Plasmo Browser Extension Framework
- Appwrite Backend as a Service
- Docker - Portainer - Coolify
- Github Actions (CI/CD)
- N8N Workflow Automation Tool

<https://github.com/KBVE/lofifocus-docker>  
<https://github.com/KBVE/lofifocus-chrome-extension>

# Our Team



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# Our Team



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# Citations

<https://ojs.stanford.edu/ojs/index.php/theword/article/view/1705/1326>

```
@article{wang2020lofi,  
  title={Lofi hip-hop radio: Beats to relax/study to},  
  author={Wang, Justin},  
  journal={The Word: Tha Stanford Journal of Student Hiphop Research},  
  volume={1},  
  number={1},  
  pages={10--23},  
  year={2020}  
}
```

```
@article{copet2023simple,  
  title={Simple and Controllable Music Generation},  
  author={Jade Copet and Felix Kreuk and Itai Gat and Tal Remez and David Kant and Gabriel Synnaeve and Yossi Adi and Alexandre Défossez},  
  year={2023},  
  journal={arXiv preprint arXiv:2306.05284},  
}
```



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Thank you!

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