

SW · AI 프로젝트 특강

부산대학교 소프트웨어교육센터

김경민 교수



“

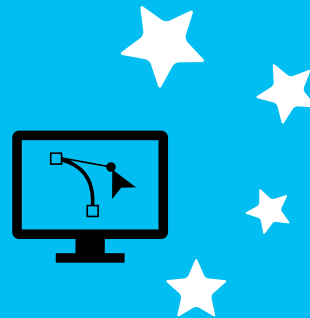


클릭! 소프트웨어 1부 – 인공지능
<https://youtu.be/D1Tfbg4fHNs>

AI프로젝트

티쳐블머신 활용 (Teachable Machine)

- 님은 연예인 찾기 -

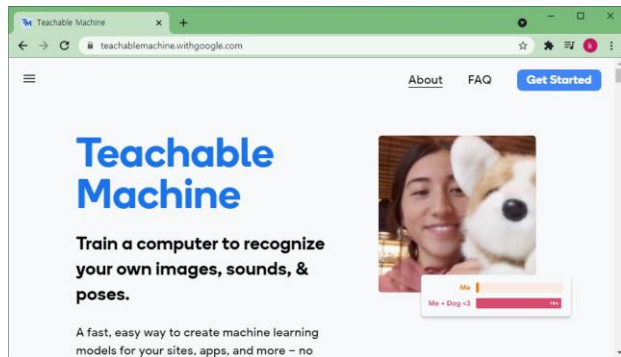


티처블머신(Teachable Machine)

4

<https://teachablemachine.withgoogle.com/>

- » 웹 기반 도구
- » 누구나 쉽고 빠르게 액세스 할 수 있는 머신러닝 학습 모델을 만들 수 있음



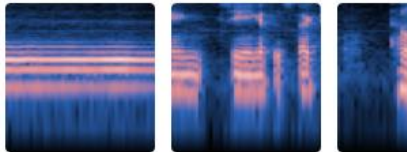
티처블머신(Teachable Machine) 프로젝트

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이미지 프로젝트

이미지, 파일 또는 웹캠을 기반으로 가르칩니다.



오디오 프로젝트

파일 또는 마이크에서 1 초 길이의 사운드를 기반으로 가르칩니다.



포즈 프로젝트

이미지, 파일 또는 웹캠을 기반으로 가르칩니다.

티쳐블머신(Teachable Machine) 사용법

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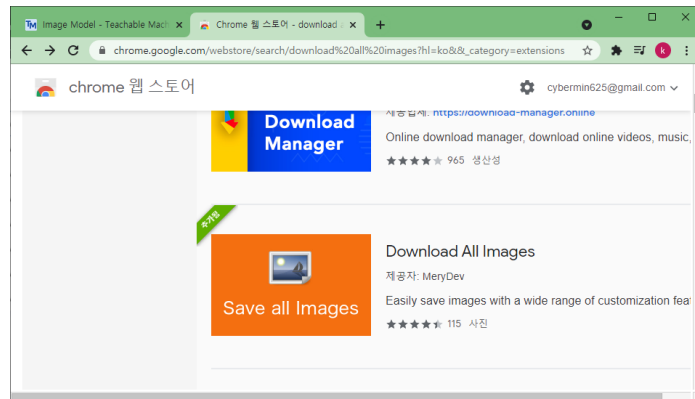


티처블머신(Teachable Machine) 이미지모으기

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크롬 확장 프로그램 설치

- » 크롬 웹스토어
[https://chrome.google.com/webstore/category/extensions?hl=ko&](https://chrome.google.com/webstore/category/extensions?hl=ko&_category=extensions)
- » Download All Images 추가

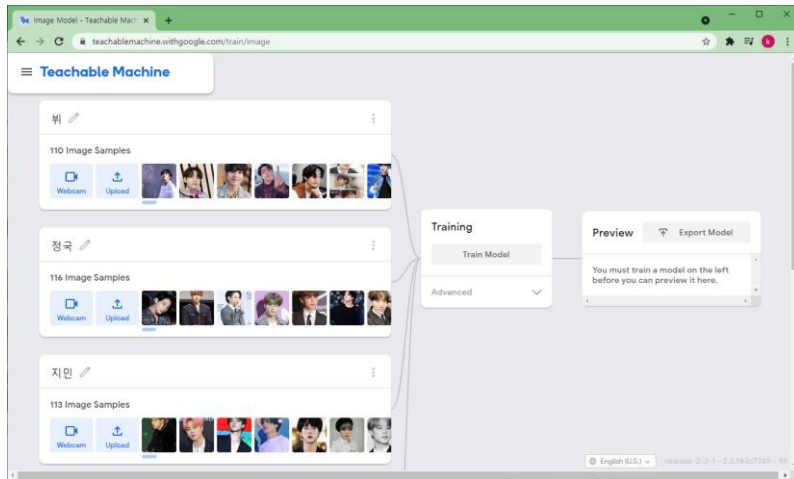


티쳐블머신(Teachable Machine) 이미지업로드

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이미지프로젝트

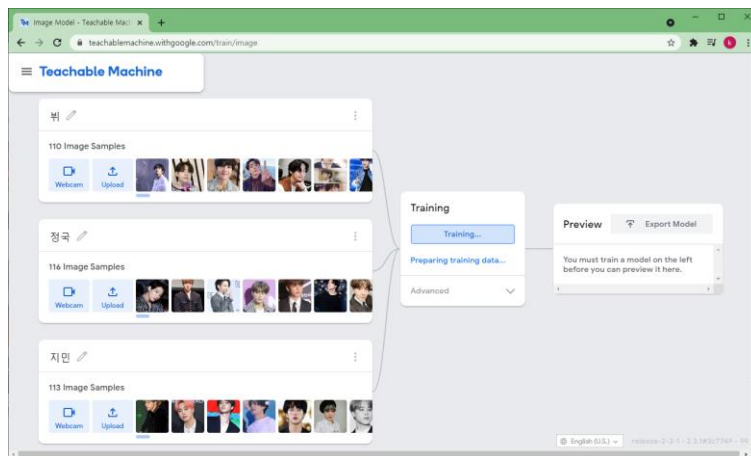
- » Class명 변경
- » 이미지 업로드



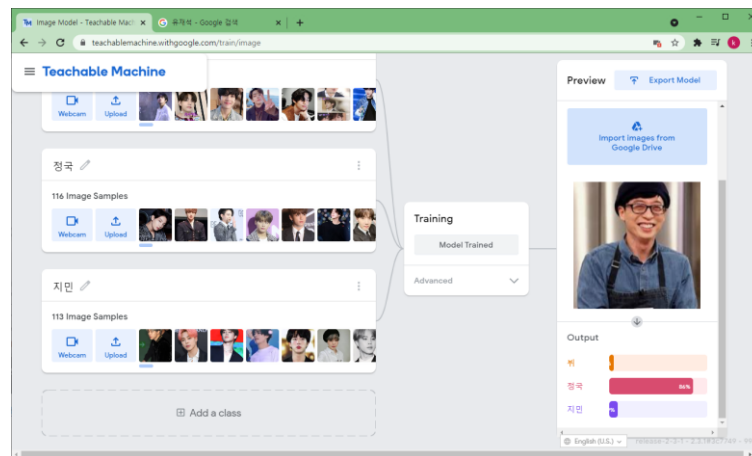
티처블머신(Teachable Machine) 학습

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학습



테스트



티처블머신(Teachable Machine) 내보내기

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Export your model to use it in projects. X

Tensorflow.js ⓘ Tensorflow ⓘ Tensorflow Lite ⓘ

Export your model:

☒ Upload (shareable link) ☐ Download

Your sharable link:

<https://teachablemachine.withgoogle.com/models/hVXW2gpm5/> Copy

When you upload your model, Teachable Machine hosts it at this link for free. (FAQ: [Who can use my model?](#))

✓ Your cloud model is up to date.

Code snippets to use your model:

JavaScript p5.js Contribute on Github

Learn more about how to use the code snippet on [github](#).

```
<div>Teachable Machine Image Model</div>
<button type="button" onclicks="init()">Start</button>
<div id="webcam-container"></div>
<div id="label-container"></div>
<script src="https://cdn.jsdelivr.net/npm/@tensorflow/tfjs@1.3.1/dist/tf.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/@teachablemachine/image@0.8/dist/teachablemachine-image.min.js"></script>
<script type="text/javascript">
```

 Copy



Teachable Machine

teachablemachine.withgoogle.com/models/hVXW2gpm5/

Machine, a tool that makes it easier for anyone – teachers, students, artists, makers of all kinds – to train machine learning models.

How does it work?

Machine learning models are trained on examples (e.g., images, sounds, poses) gathered by the creator. Their results depend on the data they've been trained on.

Want to use this model in your project?

See [this link](#) to learn how to use Teachable Machine models in your projects.

Report this model:

If you have concerns about this model, report it using [this form](#).

This model:

teachablemachine.withgoogle.com/models/hVXW2gpm5/

/model.json
The model architecture, used by TensorFlow.js library

/metadata.json

Preview this model live

Output

뷔	71%
정국	27%
지민	

AI프로젝트

Github 호스팅



Github로 Teachable Machine 서비스하기

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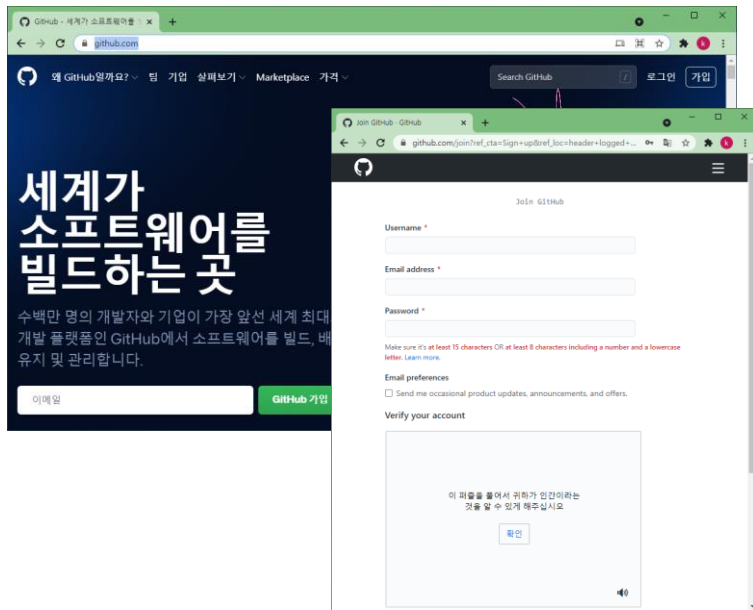


Github로 Teachable Machine 서비스하기

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Github 계정만들기

» <https://github.com/> 가입

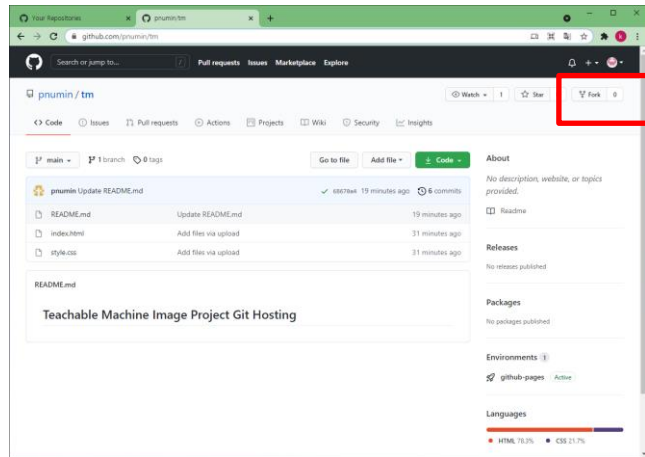


Github로 Teachable Machine 서비스하기

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Github 로그인하여 fork

- » <https://github.com/pnumin/tm>
- » 사이트로 이동
- » Fork

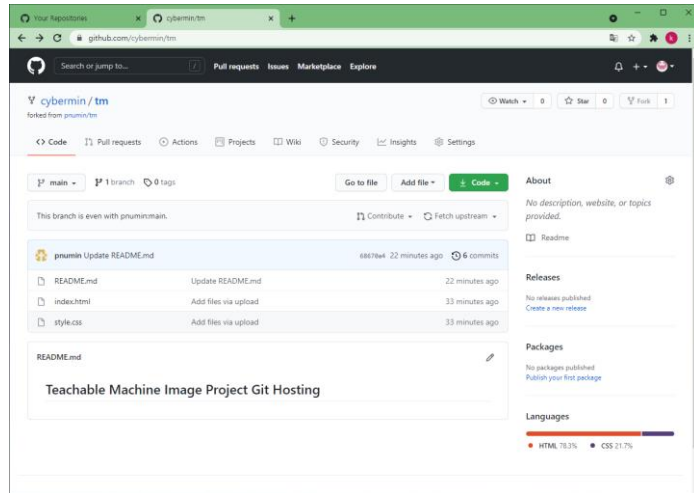


Github로 Teachable Machine 서비스하기

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자신의 Github 확인

» <https://github.com/자신아이디/tm>

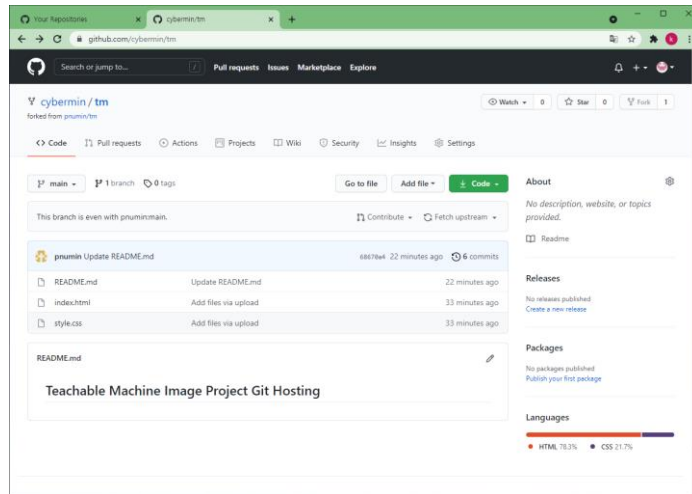


Github로 Teachable Machine 서비스하기

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자신의 Github 확인

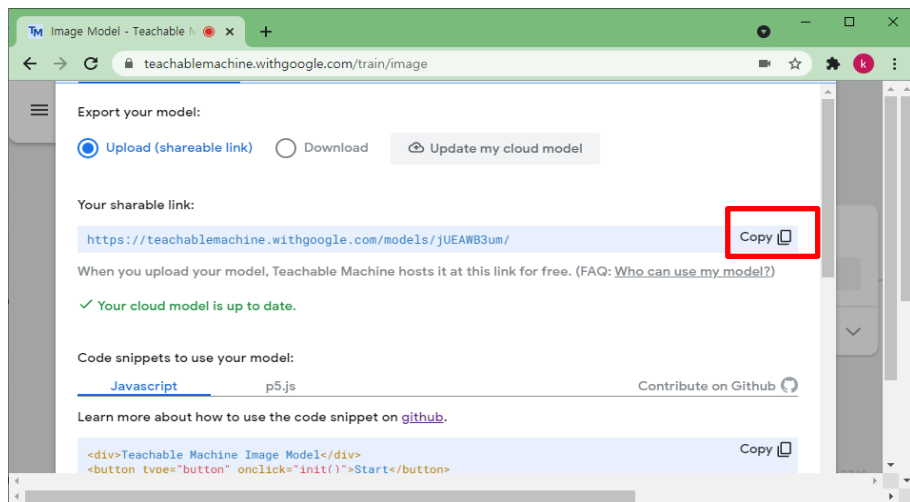
» <https://github.com/자신아이디/tm>



Github로 Teachable Machine 서비스하기

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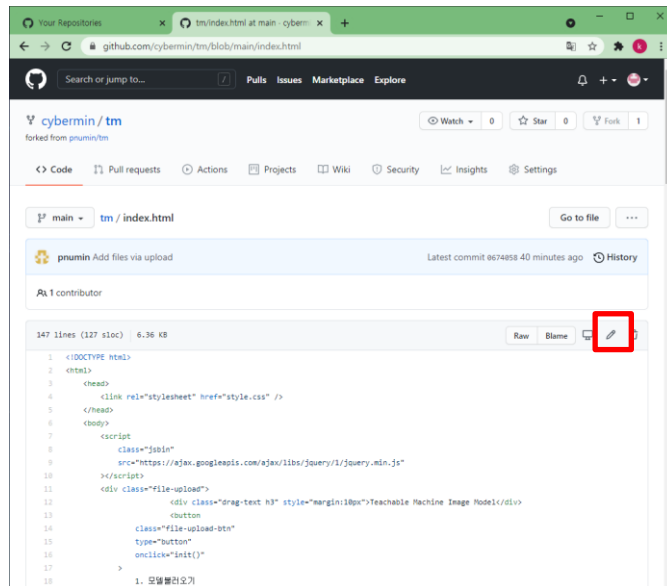
자신의 Teachable Machine 링크 가져오기



Github로 Teachable Machine 서비스하기

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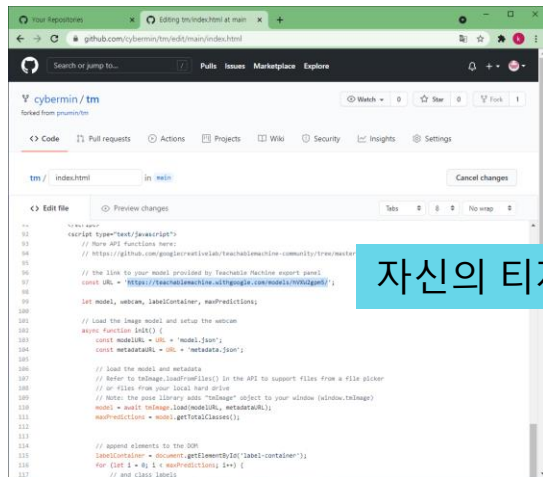
Index.html 파일 수정



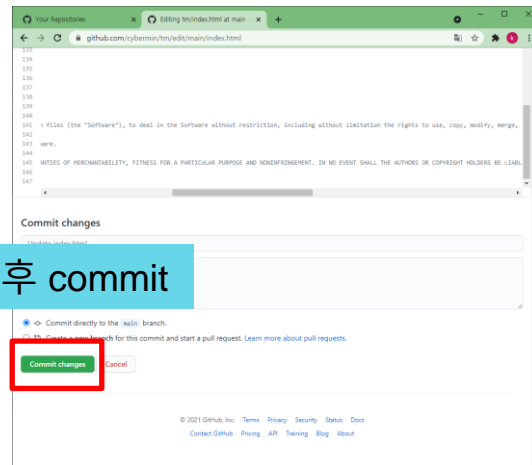
Github로 Teachable Machine 서비스하기

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Index.html 파일 수정



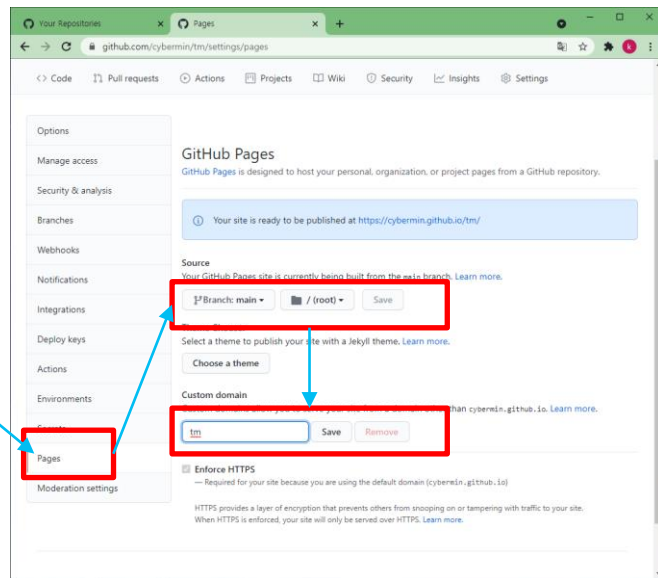
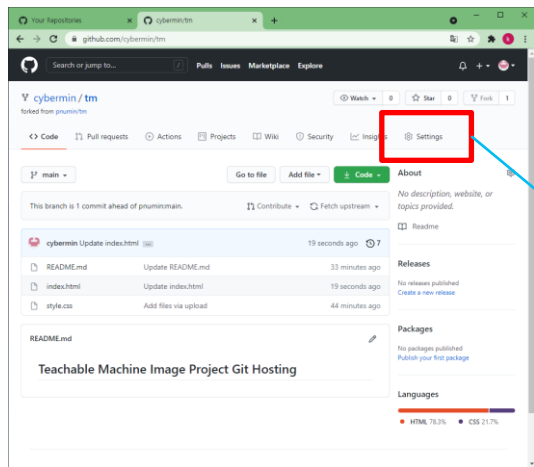
자신의 티저블머신 주소로 변경 후 commit



Github로 Teachable Machine 서비스하기

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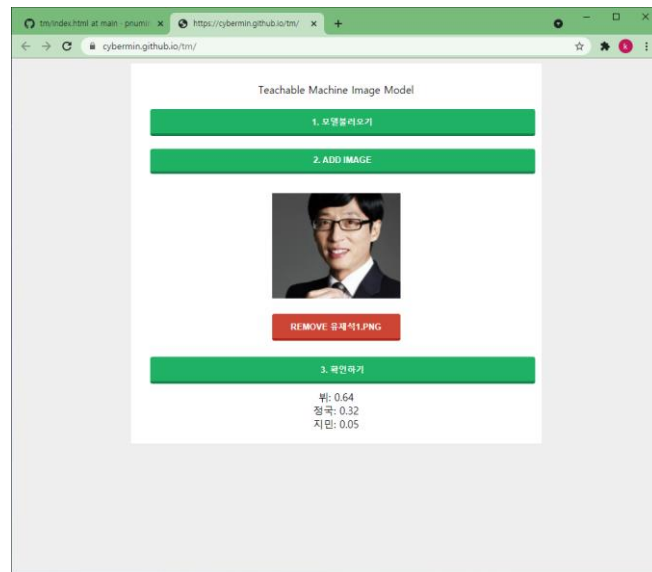
Git repository 설정변경



Github로 Teachable Machine 서비스하기

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생성된 웹 사이트 주소 실행



AI프로젝트

자신의 학습모델 만들기

