

>0. AI業界最新ニュース↩

>1. 前回までのAIプログラミング↩

>Streamlitで作る「画像認識アプリ」

>2. アプリのデプロイ（展開）↩

>前回の画像認識アプリをサーバにデプロイする

>3. 今回の課題について↩

>提出物①：画像認識アプリの「URL」

>提出物②：退職予測アプリの「URL」



第⑦回 「AIプログラミング」



> 事前知識：GitHubの基礎知識

- > 資料：【基本知識】GitHubとは？できることや基礎用語を解説！
- > 著者：SAMURAI ENGINEER [侍エンジニア]
- > URL：https://youtu.be/yzNPC_QzgFM

> ステップ①：GitHubアカウントの作成

- > ※アカウントを所有している人は、この手順はスキップしてください
- > 資料：【最新版】GitHubアカウントの作成方法を画像付きで解説！
- > 著者：PENGIN LLC.
- > URL：<https://pengi-n.co.jp/blog/github-account/#GitHub-2>

> ステップ②：GitHubのリポジトリ作成

> ステップ③：GitHubへのプッシュ（ファイルアップロード）

> ステップ④：Streamlit CloudとGitHubアカウントの連携

> ステップ⑤：Streamlit Cloudへのデプロイ（アプリの展開）

すでにGitHubを利用している人へ

**今回は初学者向けに
ブラウザ上で
GitHubを操作しますが
経験者は慣れている方法で
(CUIなど) 行ってOKです**

> ステップ①：GitHubアカウントの作成

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GitHubのアカウントを取得してから
次のページ↓に進んでください



第⑦回 「AIプログラミング」



GitHub Japan | GitHub

https://github.co.jp

Microsoft Forms Microsoft S

365 MSアカウント OneDrive 実習実務支援 WebClass QnA Maker

ソース ブログ お問い合わせ 会社概要 Explore Marketplace

サインイン サインアップ

GitHubにアクセス

<https://github.com/>

開発者のためのプラットフォーム

GitHubは、ユーザのみさんからヒントを得て作成された開発プラットフォームです。オープンソースプロジェクトやビジネスユースまで、GitHub上にソースコードをホスティングすることで数百万人もの他の開発者と一緒にコードのレビューを行ったり、プロジェクトの管理をしながら、ソフトウェアの開発を行うことができます。

GitHubに登録する



第⑦回 「AIプログラミング」



Sign in to GitHub

Username or email address

Password

[Forgot password?](#)

Sign in

New to GitHub? [Create an account.](#)



第⑦回 「AIプログラミング」



GitHub

https://github.com

Microsoft Forms Microsoft Stream メールβ Power Apps Automate Power BI Azure Office 365 MSアカウント OneDrive 実習実務支援 WebClass QnA Maker

Search or jump to... / Pull requests Issues Marketplace Explore

Recent Repositories

New

Find a repository...

satochan3955/NAILab

Recent activity

When you take actions across GitHub, we'll provide links to that activity here.

Following For you Beta

Introduce yourself

The easiest way to introduce yourself on GitHub is by creating a README in a repository about you! You can start here:

satochan3955 / README.md

```
1 - 🙋 Hi, I'm @satochan3955
2 - 👁 I'm interested in ...
3 - 🌱 I'm currently learning ...
4 - 🍷 I'm looking to collaborate on ...
5 - 📧 How to reach me ...
6
```

Dismiss this

Continue


Create a new repository


A repository contains all project files, including the revision history. Already have an existing repository? [Import a repository.](#)

Owner * satochan3955 / Repository name *

Great repository names are short and memorable. Need inspiration? How about [fictional-broccoli?](#)

Description (optional)

☒  **Public**
Anyone on the Internet can see this repository. You choose who can commit.

☐  **Private**
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

☐ **Add a README file**
This is where you can write a long description for your project. [Learn more.](#)

Add .gitignore
Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None

Choose a license
A license tells others what they can and can't do with your code. [Learn more.](#)

License: None

ⓘ You are creating a public repository in your personal account.

Create repository

リポジトリ名を入力
例：DetectionImage

Streamlit Cloudで
公開するのでPublic

※業務等で使う場合は
必ずPrivateにする！



第⑦回 「AIプログラミング」



satochan3955/ImageDetection x +

← ↻ 🔒 https://github.com/satochan3955/ImageDetection

Microsoft Forms Microsoft Stream メールβ Power Apps Automate Power BI Azure Office 365 MSアカウント OneDrive 実習実務支援 WebClass QnA Maker

🐙 Search or jump to... / Pull requests Issues Marketplace Explore

📁 satochan3955 / ImageDetection Public Pin Unwatch 1

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

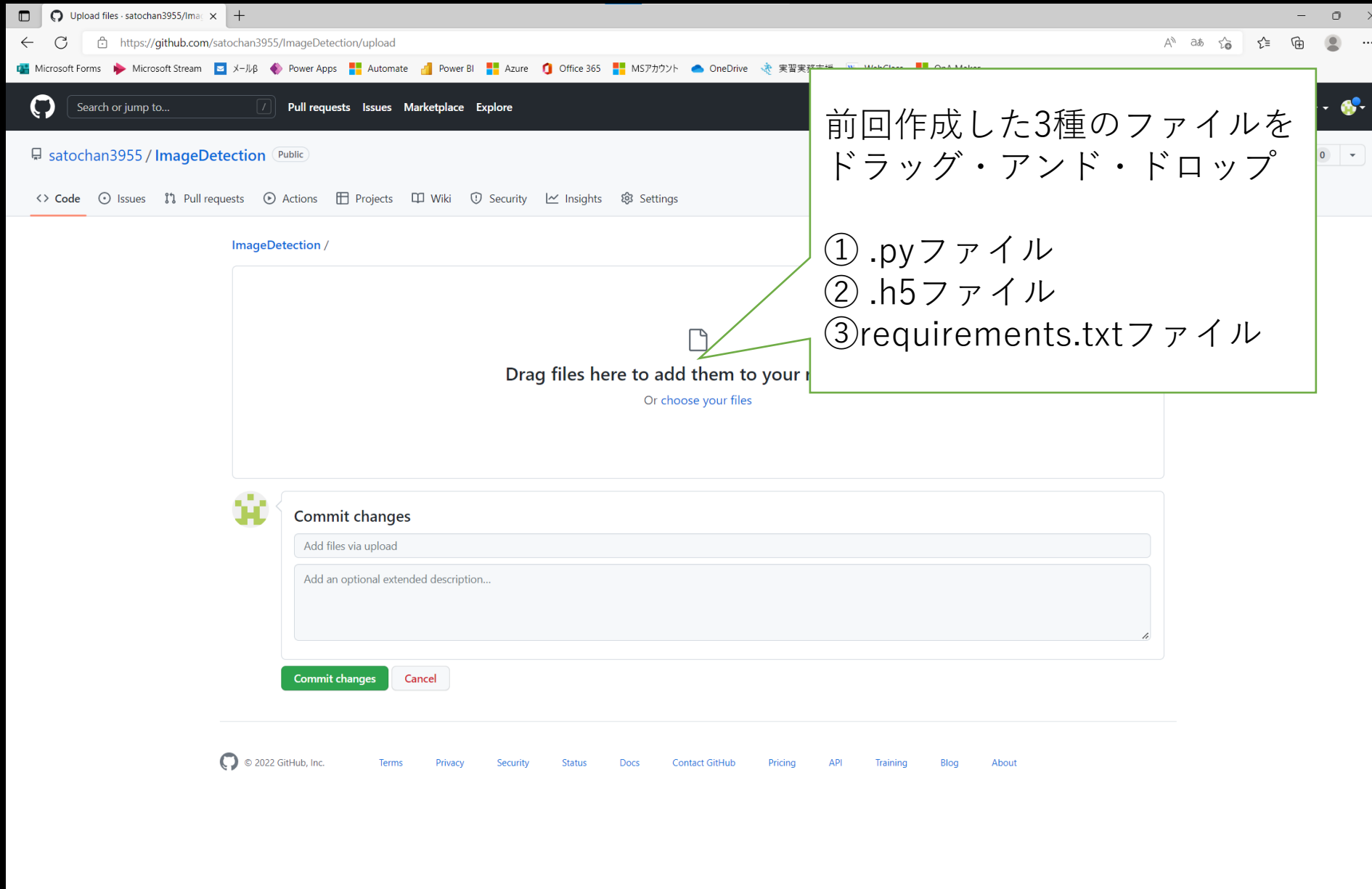
Quick setup — if you've done this kind of thing before

📁 Set up in Desktop or HTTPS SSH https://github.com/satochan3955/ImageDetection.git

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# ImageDetection" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/satochan3955/ImageDetection.git
git push -u origin main
```



The screenshot shows the GitHub web interface for a repository named 'ImageDetection' by user 'satochan3955'. The page is titled 'Upload files - satochan3955/ImageDetection' and shows the 'upload' page. A large green box highlights the 'Drag files here to add them to your repository' area, with a callout box listing the files to be uploaded: ① .pyファイル, ② .h5ファイル, and ③ requirements.txtファイル. Below the upload area, the 'Commit changes' section is visible, with a text input field for 'Add files via upload' and a larger text area for 'Add an optional extended description...'. The 'Commit changes' button is green, and the 'Cancel' button is red.

前回作成した3種のファイルを
ドラッグ・アンド・ドロップ

- ① .pyファイル
- ② .h5ファイル
- ③ requirements.txtファイル

Drag files here to add them to your repository
Or choose your files

Commit changes

Add files via upload

Add an optional extended description...

Commit changes Cancel



Drag additional files here to add them to your repository

Or [choose your files](#)

📄 keras_model.h5

✕

📄 requirements.txt

✕

📄 testapp04.py

✕



Commit changes

Add files via upload

Add an optional extended description...

Commit changes

Cancel



第⑦回 「AIプログラミング」



satochan3955/ImageDetection

← ↻ 🏠 🔒 https://github.com/satochan3955/ImageDetection

Search or jump to... Pull requests Issues Marketplace Explore

satochan3955 / ImageDetection Public

📄 Code

🗨 Issues

🔗 Pull requests

🎬 Actions

📁 Projects

📖 Wiki

🛡 Security

📊 Insights

⚙ Settings

🔗 main 1 branch 0 tags

Go to file Add file Code

👤 satochan3955 Add files via upload 0bc3185 now 1 commit

📄 keras_model.h5	Add files via upload	now
📄 requirements.txt	Add files via upload	now
📄 testapp04.py	Add files via upload	now

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

0 stars

1 watching

0 forks

Releases

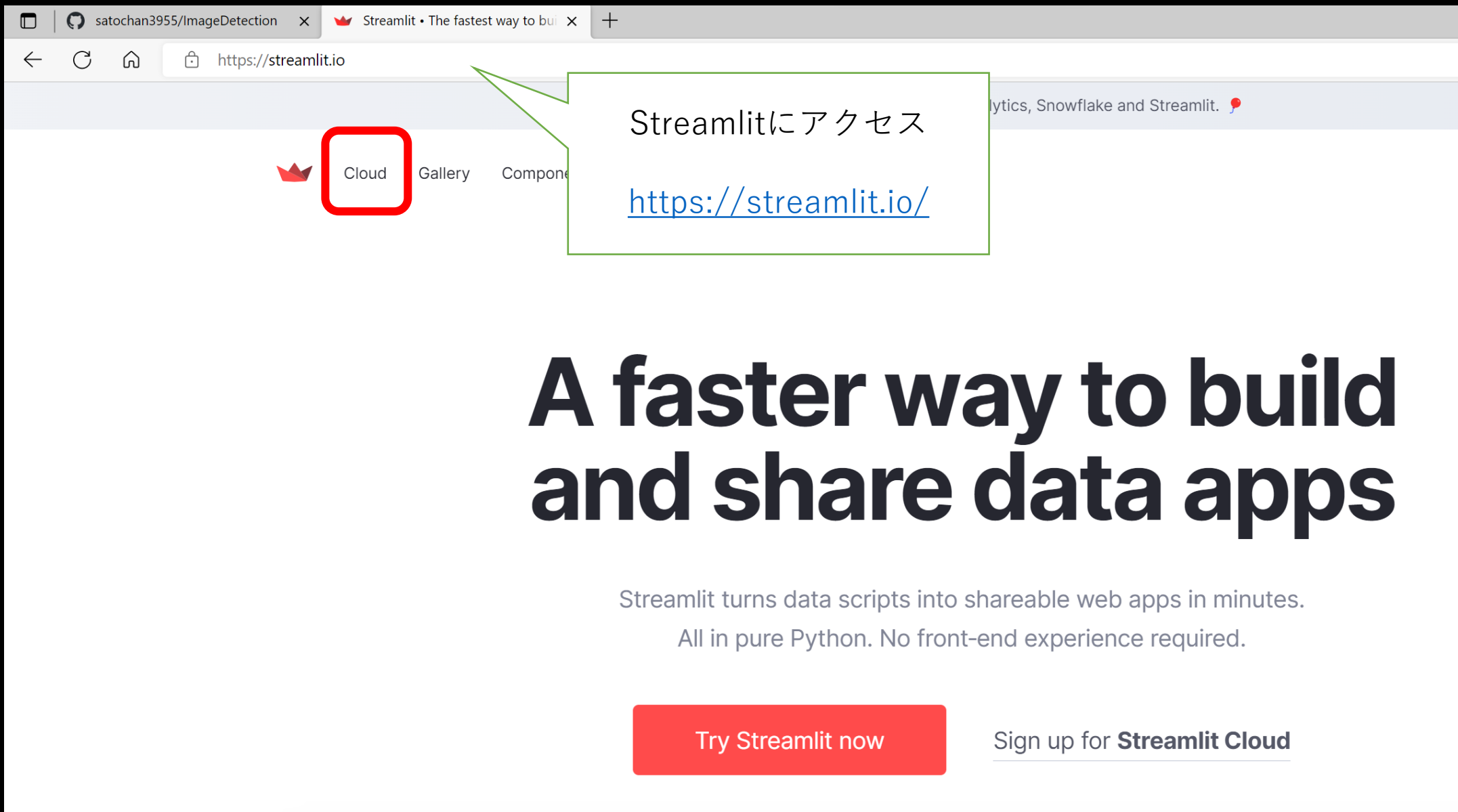
No releases published

Create a new release

Packages

No packages published

Publish your first package



The screenshot shows a web browser window with two tabs. The first tab is titled 'satochan3955/ImageDetection' and the second is 'Streamlit • The fastest way to build data apps'. The address bar shows 'https://streamlit.io'. The website header includes a red crown icon, the word 'Cloud', and links for 'Gallery' and 'Components'. A red square highlights the 'Cloud' link, and a green callout box points to it with the text 'Streamlitにアクセス' and the URL 'https://streamlit.io/'. The main content area features the headline 'A faster way to build and share data apps', followed by the text 'Streamlit turns data scripts into shareable web apps in minutes. All in pure Python. No front-end experience required.' At the bottom, there are two buttons: 'Try Streamlit now' and 'Sign up for Streamlit Cloud'.

Streamlitにアクセス
<https://streamlit.io/>

A faster way to build and share data apps

Streamlit turns data scripts into shareable web apps in minutes.
All in pure Python. No front-end experience required.

[Try Streamlit now](#) [Sign up for Streamlit Cloud](#)



第⑦回 「AIプログラミング」




satochan3955/ImageDetection × Cloud • Streamlit ×

← ↻ 🏠 🔒 https://streamlit.io/cloud

🗣️ ⭐ ⭐ 🔖 👤 ⋮

🧑🏫 Latest news: Multipage apps, user analytics, Snowflake and Streamlit. 📌

 Cloud Gallery Components Community Docs Blog

Sign in

Sign up

Community Cloud

Deploy, manage, and share your apps with the world,
directly from Streamlit — all for free.

Get Started

NYC Ridesharing Data

Examining how Uber pickups vary over time in New York City's and at its major regional




第⑦回 「AIプログラミング」



satochan3955/ImageDetection x Cloud • Streamlit x Sign in • Streamlit x +

https://share.streamlit.io/signup



Get started with Streamlit Cloud

[Continue with Google](#)

[Continue with GitHub](#)

OR

[Continue with email](#)

Already on Streamlit? [Sign in!](#)






第⑦回 「AIプログラミング」







Browser tabs: satochan3955/ImageDetection, Cloud • Streamlit, Authorize application

Address bar: https://github.com/login/oauth/authorize?access_type=online&client_id=06f8c147652718282386&redirect_uri=https%3A%2F%2Fshare.streamlit.io%2F-%2Fauth%2Fgithub&response_type=code&scop...



Authorize Streamlit

**Streamlit by streamlit**
wants to access your satochan3955 account

-  **Repository webhooks and services**
Admin access
-  **Organizations and teams**
Read-only access
-  **Personal user data**
Email addresses (read-only)

CancelAuthorize streamlit

Authorizing...
<https://share.streamlit.io>

Start free trial - Streamlit x +

Set up your account

First Name required

Last Name

Primary Email required

How long have you been building apps with Streamlit?
Please Select ▾

How are you planning on using Streamlit Cloud?
Please Select ▾

What's your functional area?
Please Select ▾

Company name

Country required

Please Select ▾

Are you using Snowflake in any capacity?
Please Select ▾

Continue

氏名・e-mailアドレス
& アンケートに答える



第⑦回 「AIプログラミング」



Browser tabs: satochan3955/ImageDetection, Cloud • Streamlit, Your apps • Streamlit

Address bar: https://share.streamlit.io

Top right: Analytics, Settings, satochan3955

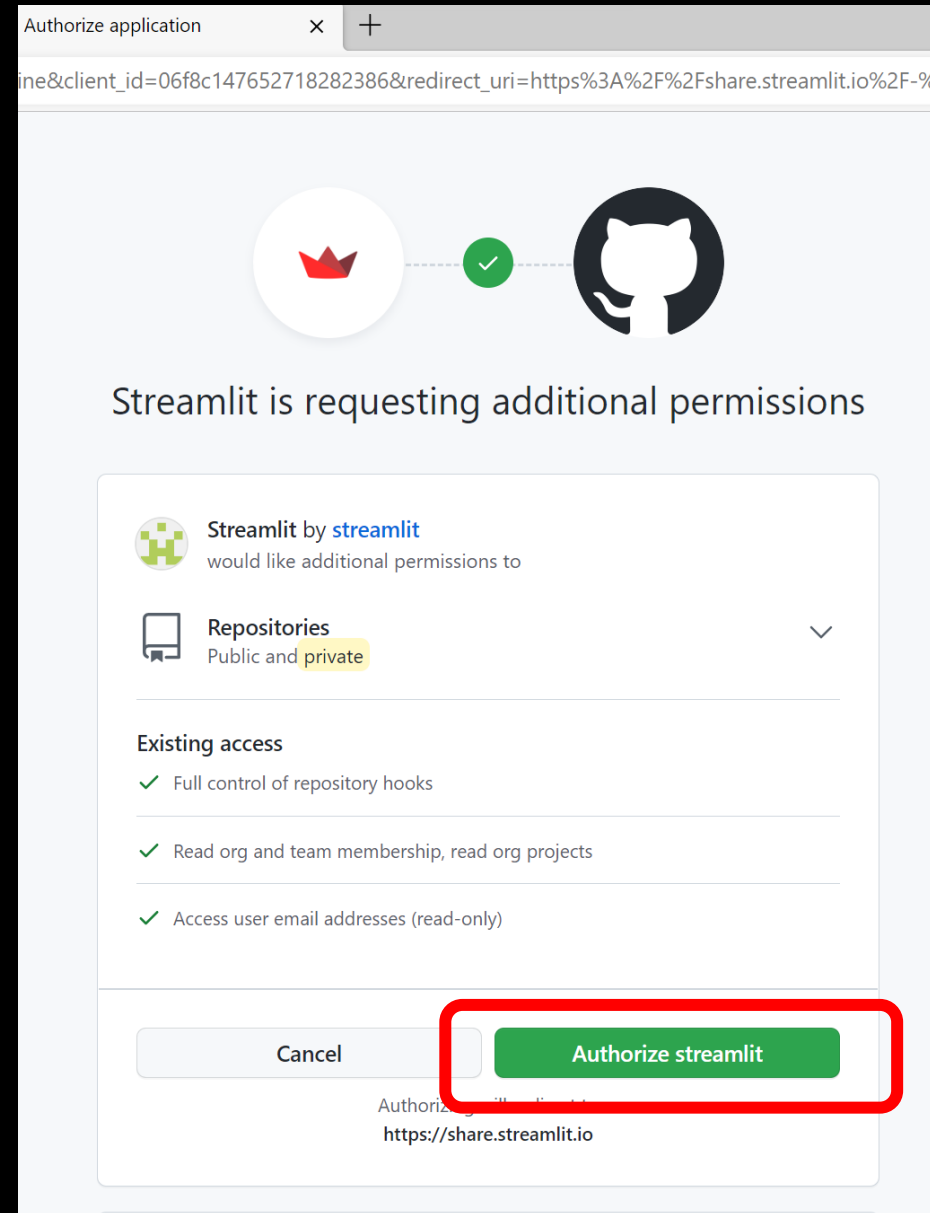
Your apps

New app

- From existing repo
- From sample app template

No apps to show in this workspace

Deploy one now



[← Back](#)

Deploy an app

Repository

satochan3955/ImageDetection

デプロイしたい
リポジトリ名を選択

Branch

main

デプロイ後に起動する
ファイル名を選択

Main file path

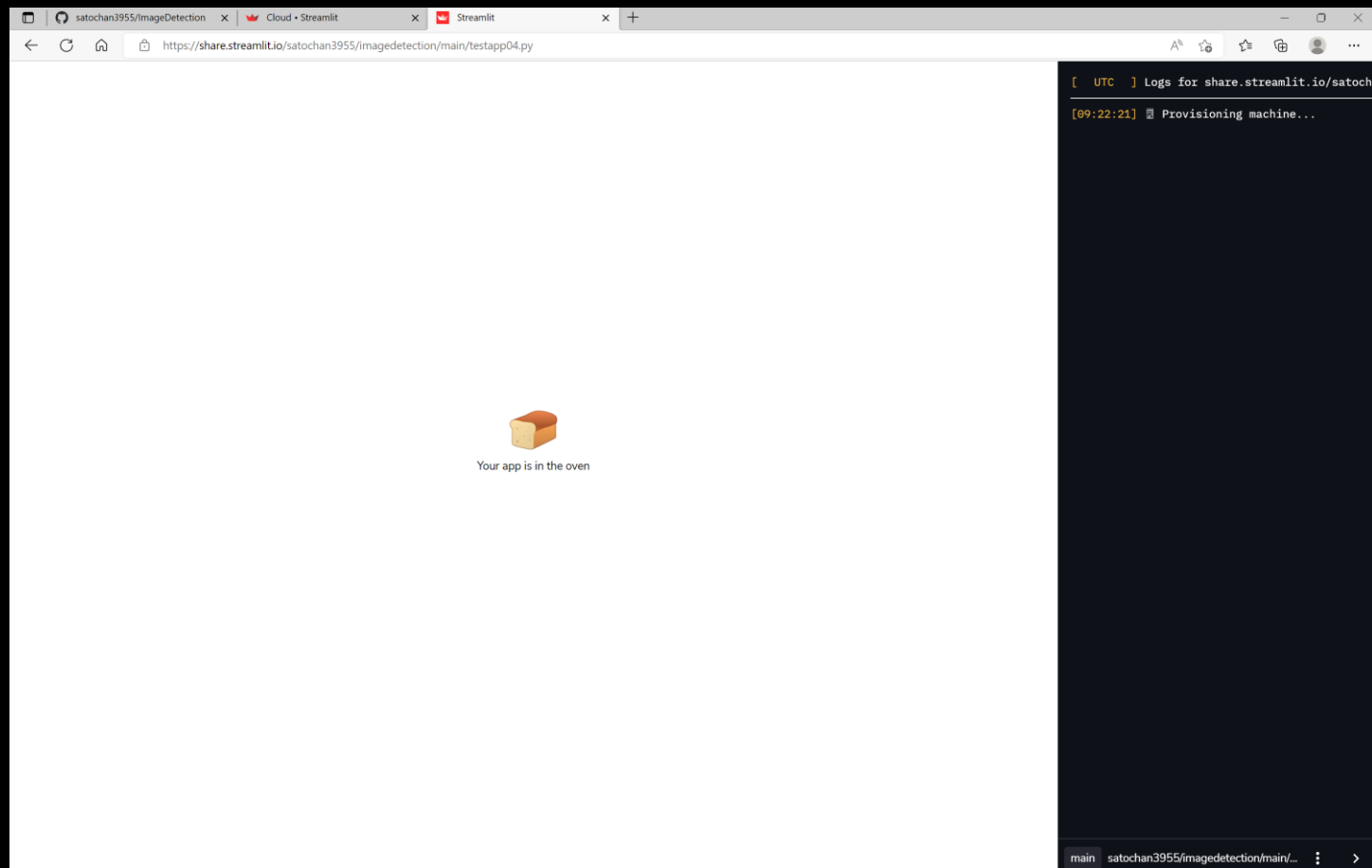
testapp04.py

[Advanced settings...](#)

Deploy!



第⑦回 「AIプログラミング」





第⑦回 「AIプログラミング」



← ↻ 🏠 🔒

satochan3955/ImageDetection × Cloud • Streamlit × Streamlit × +

https://share.streamlit.io/satochan3955/imagetetection/main/testapp04.py

Share ☆ ≡

Image Classification with Google's Teachable Machine

Choose a Image...

Drag and drop file here
Limit 200MB per file • JPG

Browse files

Made with Streamlit

[09:22:31] 🌟 Cloned repository!
[09:22:31] 🌟 Pulling code changes from Github
[09:22:32] 🌟 Processing dependencies...
pip
Collecting streamlit
 Downloading streamlit-1.10.0-py2.py3-none-a
 9.1
Collecting typing_extensions
 Downloading typing_extensions-4.2.0-py3-non
Collecting numpy
 Downloading numpy-1.22.4-cp39-cp39-manylinu
 16.1
Collecting pandas
 Downloading pandas-1.4.2-cp39-cp39-manylinu
 11.1
Collecting tensorflow-cpu
 Downloading tensorflow_cpu-2.9.1-cp39-cp39-
 207.5
Collecting validators
 Downloading validators-0.20.0.tar.gz (30 kB)
 Preparing metadata (setup.py): started
 Preparing metadata (setup.py): finished wit
Collecting attrs
 Downloading attrs-21.4.0-py2.py3-none-any.w
 60.1
Collecting click>=7.0
 Downloading click-8.1.3-py3-none-any.whl (9
 96.1
Collecting importlib-metadata>=1.4
 Downloading importlib_metadata-4.11.4-py3-n
Collecting blinker
 Downloading blinker-1.4.tar.gz (111 kB)
 111.5
 Preparing metadata (setup.py): started
 Preparing metadata (setup.py): finished wit
Collecting pydeck>=0.1.dev5
 Downloading pydeck-0.7.1-py2.py3-none-any.w
 4.1
Collecting requests
 Downloading requests-2.28.0-py3-none-any.wh
 62.1
Collecting semver
 Downloading semver-2.13.0-py2.py3-none-any.
Collecting pympler>=0.9
 Downloading Pympler-1.0.1-py3-none-any.whl
 164.8
Collecting pyarrow
 Downloading pyarrow-8.0.0-cp39-cp39-manylin
 29.1

main satochan3955/imagetetection/main/... ⋮ >

課題①：デプロイされた画像認識アプリのURLをレポートに記載して提出

Choose a Image...

Drag and drop file here
Limit 200MB per file • JPG

dog02.jpg 76.5KB



Uploaded Image.

Classifying...

推論結果: [0.16522014141082764, 0.8347799181938171]番

判定結果: 1番

これは83.5%の確率で「犬」です！

```
[09:22:31] * Cloned repository!  
[09:22:31] * Pulling code changes from Github...  
[09:22:32] * Processing dependencies...  
pip  
Collecting streamlit  
  Downloading streamlit-1.10.0-py2.py3-none-any.whl (9.2MB)  
Collecting typing_extensions  
  Downloading typing_extensions-4.2.0-py3-none-any.whl (33kB)  
Collecting numpy  
  Downloading numpy-1.22.4-cp39-cp39-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (16.1MB)  
Collecting pandas  
  Downloading pandas-1.4.2-cp39-cp39-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (11.1MB)  
Collecting tensorflow-cpu  
  Downloading tensorflow_cpu-2.9.1-cp39-cp39-manylinux_2_17_x86_64.whl (207.5MB)  
Collecting validators  
  Downloading validators-0.20.0.tar.gz (30 kB)  
  Preparing metadata (setup.py): started  
  Preparing metadata (setup.py): finished with status 'done'  
Collecting attrs  
  Downloading attrs-21.4.0-py2.py3-none-any.whl (60kB)  
Collecting click>=7.0  
  Downloading click-8.1.3-py3-none-any.whl (96kB)  
Collecting importlib-metadata>=1.4  
  Downloading importlib_metadata-4.11.4-py3-none-any.whl (16kB)  
Collecting blinker  
  Downloading blinker-1.4.tar.gz (111 kB)  
  Preparing metadata (setup.py): started  
  Preparing metadata (setup.py): finished with status 'done'  
Collecting pydeck>=0.1.dev5  
  Downloading pydeck-0.7.1-py2.py3-none-any.whl (4.1MB)  
Collecting requests  
  Downloading requests-2.28.0-py3-none-any.whl (62kB)  
Collecting semver  
  Downloading semver-2.13.0-py2.py3-none-any.whl (17kB)  
Collecting pypmpler>=0.9  
  Downloading Pypmpler-1.0.1-py3-none-any.whl (164.8kB)  
Collecting pyarrow  
  Downloading pyarrow-8.0.0-cp39-cp39-manylinux_2_17_x86_64.whl (29.1MB)
```