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# **pydrawing**

***Release 0.1.0***

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python, ,



## PYDRAWING

### 2.1

- : Linux or macOS or Windows
- Python: Python3.6+
- ffmpeg: , `ffmpeg`, `ffmpeg`
- Pytorch: CartoonGan, Pytorch>=1.0.0,

### 2.2 PIP()

(python):

```
pip install pydrawing --upgrade
```

### 2.3

1.

:

```
pip install git+https://github.com/CharlesPikachu/pydrawing.git@master
```

2.

pydrawing:

```
git clone https://github.com/CharlesPikachu/pydrawing.git
```

, pydrawing:

```
cd pydrawing
```

:

```
python setup.py install
```





## 3.1

### 3.1.1

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {'mode': ['rgb', 'hsv'][0]}
filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'cartoonise', config=config)
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- mode: , "rgb""hsv", "rgb"

### 3.1.2

1.

Paper

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {'use_face_segmentor': False}
```

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```
filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'cartoonizeface', config=config)
```

**4.config**

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- use\_cuda: cuda, "False";
- use\_face\_segmentor: , "False"

**3.1.3****1.**

Paper

**2.**

Introduction

**3.**

```
from pydrawing import pydrawing

config = {'mode': ['gray', 'color'] [0]}
filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'pencildrawing', config=config)
```

**4.config**

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- mode: , "gray""color", "gray";
- kernel\_size\_scale: , "1/40";
- stroke\_width: , "1";
- color\_depth: , "1";
- weights\_color: , "[62, 30, 5]";
- weights\_gray: , "[76, 22, 2]";
- texture\_path: , "default.jpg"

### 3.1.4 GAN

1.

Paper

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {'style': ['Hayao', 'Hosoda', 'Paprika', 'Shinkai'] [0]}
filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'cartoongan', config=config)
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- style: , "Hayao", "Hosoda", "Paprika""Shinkai", "Hosoda";
- use\_cuda: cuda, "True"

### 3.1.5

1.

Paper

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {'style': ['starrynight', 'cuphead', 'mosaic'] [0]}
filepath = 'input.jpg'
drawing_client = pydrawing()
drawing_client.execute(filepath, 'fastneuralstyletransfer', config=config)
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- style: , "starrynight", "cuphead""mosaic", "starrynight";
- use\_cuda: cuda, "True"

### 3.1.6

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'douyineffect')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False"

### 3.1.7

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'characterize')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False"

### 3.1.8

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {'src_images_dir': 'images', 'block_size': 15}
filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'photomosaic', config=config)
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- block\_size: block, "15";
- src\_images\_dir: ,

### 3.1.9

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.mp4'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'glitch')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- header\_size: , , "200";
- intensity: , "0.1";
- block\_size: , "100"

### 3.1.10

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'beziercurve')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- num\_samples: , "15";
- width: , "600";
- height: , "600";
- num\_colors: , "32"

### 3.1.11 -

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'geneticfittingcircle')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- cache\_dir: , "cache";
- save\_cache: , "True";

- init\_cfg: ,:

```
init_cfg = {
    'num_populations': 10,
    'init_num_circles': 1,
    'num_generations': 1e5,
    'print_interval': 1,
    'mutation_rate': 0.1,
    'selection_rate': 0.5,
    'crossover_rate': 0.5,
    'circle_cfg': {'radius_range': 50, 'radius_shift_range': 50, 'center_shift_range': 50, 'color_shift_range': 50},
}
```

### 3.1.12 -

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.jpg'
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, 'geneticfittingpolygon')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- cache\_dir: , "cache";
- save\_cache: , "True";
- init\_cfg: ,:

```
init_cfg = {
    'num_populations': 10,
    'num_points_list': list(range(3, 40)),
    'init_num_polygons': 1,
    'num_generations': 1e5,
    'print_interval': 1,
    'mutation_rate': 0.1,
    'selection_rate': 0.5,
    'crossover_rate': 0.5,
    'polygon_cfg': {'size': 50, 'shift_range': 50, 'point_range': 50, 'color_range': 50},
}
```

### 3.1.13

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

filepath = 'input.jpg'
drawing_client = pydrawing()
drawing_client.execute(filepath, 'nostalgicstyle')
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False"

### 3.1.14

1.

Paper

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {
    'sat_threshold': 0.20,
    'value_threshold': 0.25,
    'num_colors': 8,
    'sample_fraction': 0.05,
    'white_bg': False,
    'saturate': True,
}
filepath = 'input.jpg'
drawing_client = pydrawing()
drawing_client.execute(filepath, 'noteprocessor', config=config)
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- sat\_threshold: , "0.2";



- value\_threshold: , "0.25";
- num\_colors: , "8";
- sample\_fraction: , "0.05";
- white\_bg: , "False";
- saturate: , "True"

### 3.1.15

1.

Paper

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {
    'edge_operator': 'sobel',
    'palette': 0,
    'brush_width': 5,
}
filepath = 'input.jpg'
drawing_client = pydrawing()
drawing_client.execute(filepath, 'oilpainting', config=config)
```

4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- brush\_width: , "5";
- palette: , "0";
- edge\_operator: , "sobel", "prewitt", "scharr", "roberts", "sobel"

### 3.1.16

1.

2.

Introduction

3.

```
from pydrawing import pydrawing

config = {
    'epsilon_factor': 0.08,
    'canny_boundaries': [100, 200],
    'use_preprocess': False,
}
filepath = 'input.jpg'
drawing_client = pydrawing()
drawing_client.execute(filepath, 'photocorrection', config=config)
```

#### 4.config

- savename: , "output";
- savedir: , "outputs";
- merge\_audio: , , "False";
- epsilon\_factor: , "0.08";
- canny\_boundaries: canny, "[100, 200]";
- use\_preprocess: , "False"

## 3.2

:

```
import random
from pydrawing import pydrawing

filepath = 'asserts/dog.jpg'
config = {
    "savedir": "outputs",
    "savename": "output"
}
drawing_client = pydrawing.pydrawing()
drawing_client.execute(filepath, random.choice(drawing_client.getallsupports()),
    ↪ config=config)
```

:

**2022-01-18**

- : v0.1.0,
- : /

**2022-01-19**

- : v0.1.1v0.1.2,
- : ,

**2022-01-25**

- : v0.1.3v0.1.4,
- : , pytorch, pytorchcuda

**2022-01-26**

- : v0.1.5,
- : FPS

**2022-02-27**

- : v0.1.6,
- :

**2022-03-21**

- : v0.1.7,
- : Apache-2.0

**2022-03-24**

- : v0.1.8,
- :

**2022-04-23**

- : v0.1.9,
- :



- .....



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