

# PLASS-NIA 인공지능학습데이터구축사업 (2021)

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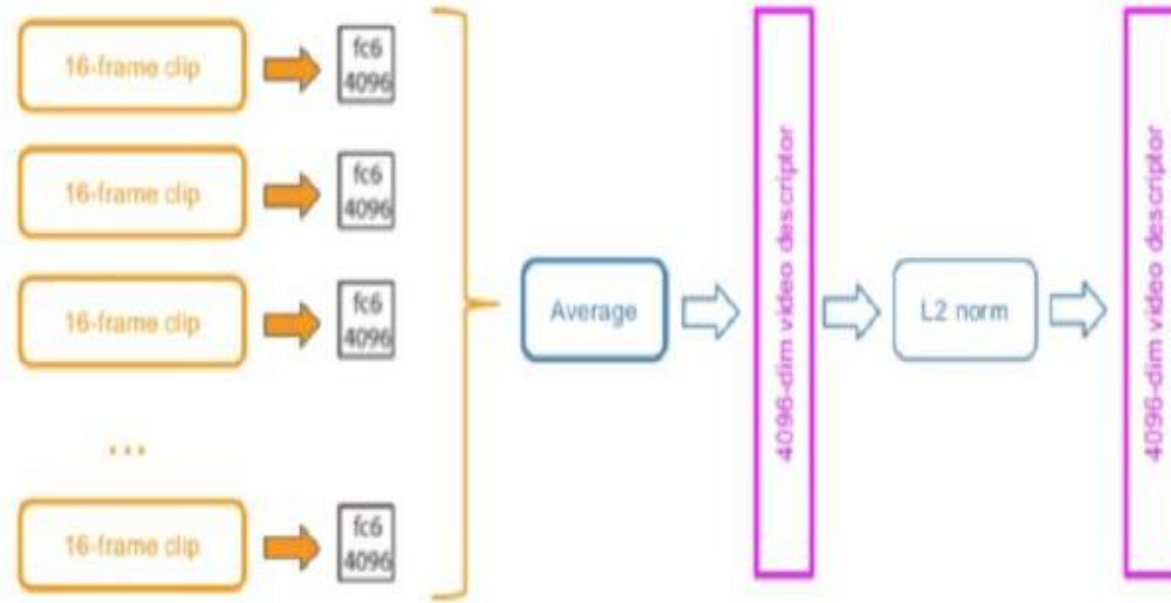
4팀(김도현, 전은성)

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# 1. 수정 전 계획



- 각 영상(.mp4) 에서 16프레임단위로 fc6-1 데이터를 생성
- 만들어진 데이터를 평균 내고 정규화 하여 C3D feature 텍스트를 추출

## 2. 수정 후 계획

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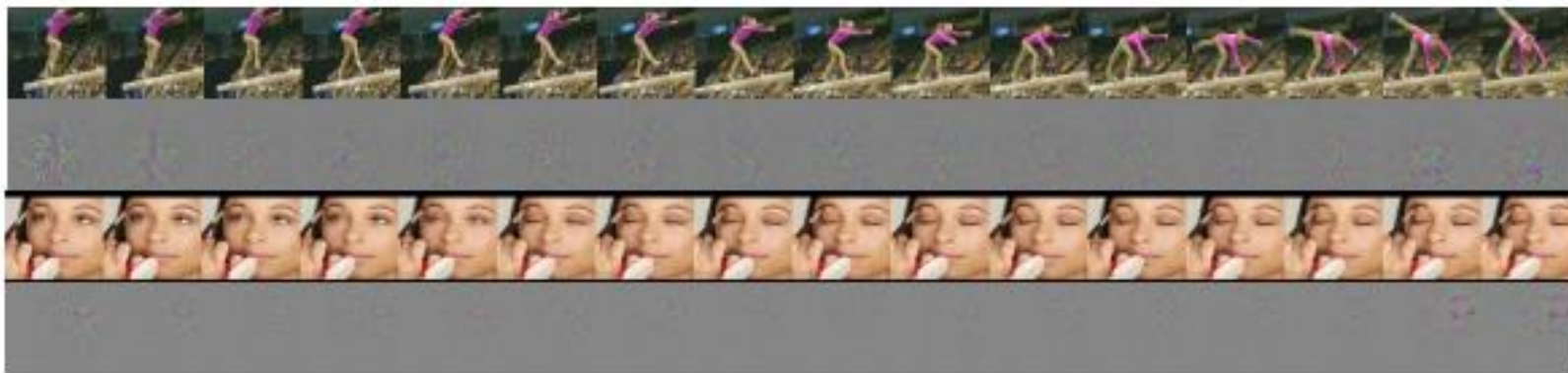
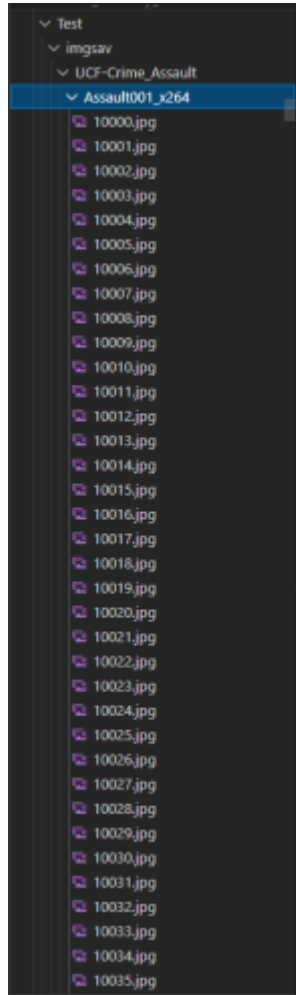


Figure 4. **Visualization of C3D model, using the method from [46].** Interestingly, C3D captures appearance for the first few frames but thereafter only attends to salient motion. Best viewed on a color screen.

### 3. 새 모델 테스트

video2img.py M		result.txt X	
NIA_AI_DATASET_2021-C3D > C3D-keras > results > result.txt			
1	epoch	loss	acc val_loss val_acc
2	0	6.439971427912493	0.33034313359234907 6.353613392877396 0.23005268199233717
3	1	5.026951305412348	0.5594226315002989 6.828036908993776 0.24937739463601533
4	2	5.076695233405314	0.6025758368200836 6.889182496892995 0.26827107279693485
5	3	5.077438870786694	0.6214182979677226 6.903272311075437 0.3162116858237548
6	4	2.7922659724398566	0.8656278018529587 4.407593773425311 0.40859674329501916
7	5	1.5633351954064252	0.91824660041841 4.140476756534357 0.3911637931034483
8	6	1.3143018531321908	0.9305654139270771 4.202497538935636 0.3833333333333336
9	7	1.2388688886390071	0.9365286909742977 3.9686963720339925 0.4099137931034483
10	8	1.0561562835751575	0.9765905185295876 3.8023421952094156 0.4309865900383142
11	9	0.9613749240277345	0.9829553945008966 3.6800306674621113 0.4301963601532567
12	10	0.8995564108212337	0.983786610878661 3.5822272884434665 0.427705938697318
13	11	0.8511451233069268	0.9847205618649133 3.545034996257431 0.4309865900383142
14	12	0.8191033346802263	0.9879053347280334 3.551033660735207 0.4314176245210728
15	13	0.8133778873846621	0.98804075762104 3.5557753227222926 0.42950191570881224
16	14	0.8079670942112919	0.9886758442916915 3.55013693822298 0.42890325670498086
17	15	0.8036389316332533	0.9882789151225344 3.534232763403677 0.4295977011494253
18			

## 4. 새 모델 학습데이터





## 4. 새 모델 학습데이터

```
1 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault001_x264.mp4 0
2 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault001_x264_check.mp4 0
3 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault002_x264.mp4 0
4 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault002_x264_check.mp4 0
5 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault003_x264.mp4 0
6 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault004_x264.mp4 0
7 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault004_x264_check.mp4 0
8 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault005_x264.mp4 0
9 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault005_x264_check.mp4 0
10 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault006_x264.mp4 0
11 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault006_x264_check.mp4 0
12 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault007_x264.mp4 0
13 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault007_x264_check.mp4 0
14 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault008_x264_check.mp4 0
15 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault009_x264.mp4 0
16 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault009_x264_check.mp4 0
17 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault010_x264.mp4 0
18 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault010_x264_check.mp4 0
19 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault011_x264.mp4 0
20 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault011_x264_check.mp4 0
21 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault012_x264.mp4 0
22 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault012_x264_check.mp4 0
23 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault013_x264.mp4 0
24 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault013_x264_check.mp4 0
25 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault014_x264.mp4 0
26 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault014_x264_check.mp4 0
27 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault015_x264_check.mp4 0
28 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault017_x264.mp4 0
```

trainlist.txt

UCF-Crime\_Ind.txt - Windows 메모장

파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)

```
1 Assault
2 Fighting
3 Shoplifting
4 Stealing
```

testlist.txt

```
1 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault003_x264_check.mp4 0
2 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault008_x264.mp4 0
3 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault015_x264.mp4 0
4 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault016_x264.mp4 0
5 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault016_x264_check.mp4 0
6 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault020_x264_check.mp4 0
7 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault025_x264_check.mp4 0
8 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault026_x264.mp4 0
9 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault032_x264.mp4 0
10 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault037_x264_check.mp4 0
11 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault038_x264_check.mp4 0
12 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault040_x264_check.mp4 0
13 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault046_x264.mp4 0
14 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault047_x264_check.mp4 0
15 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault049_x264.mp4 0
16 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Assault/Assault049_x264_check.mp4 0
17 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting002_x264_check.mp4 1
18 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting004_x264_check.mp4 1
19 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting007_x264.mp4 1
20 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting008_x264.mp4 1
21 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting009_x264.mp4 1
22 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting012_x264_check.mp4 1
23 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting014_x264.mp4 1
24 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting018_x264_check.mp4 1
25 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting021_x264.mp4 1
26 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting029_x264.mp4 1
27 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting030_x264.mp4 1
28 /home/NIA_AI_DATASET_2021/UCF-Crime/UCF-Crime_Fighting/Fighting033_x264_check.mp4 1
```

## 5. 향후 계획

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- UCF-Crime 학습데이터를 사용하여 테스트
- 테스트 결과 확인
- 개선 사항 수정
- AIHUB 학습데이터를 사용하여 테스트
- 테스트 결과 확인
- 개선 사항 수정



# 감사합니다

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4팀(김도현, 전은성)