

BU101

Filtered Image Action Dataset

Dataset Statistics

Our manually filtered action dataset, BU101, comprises of 23,782 images, with an average of 235 images per class and a minimum of 100 images per class. It has one-to-one correspondence with the UCF101 action recognition video benchmark dataset; this is to facilitate research in using both images and video to classify actions. The UCF 101 divides action classes into five main types: *Human-Object Interaction*, *Body-Motion Only*, *Playing Musical Instruments*, *Human-Human Interaction*, and *Sports*. Tables 1, 2, 3, 4, and 5 show the number of images available for each class in the five types, respectively.

Action Class	Number of Images
ApplyEyeMakeup	234
ApplyLipstick	150
BlowDryHair	124
BrushingTeeth	538
CuttingInKitchen	189
Hammering	131
HulaHoop	230
JugglingBalls	298
JumpRope	231
Knitting	176
Mixing	102
MoppingFloor	138
Nunchucks	100
PizzaTossing	267
ShavingBeard	169
SkateBoarding	290
SoccerJuggling	258
Typing	148
WritingOnBoard	183
YoYo	202

Table 1: The number of images our dataset contains for each class belonging to the type *Human-Object Interaction* (20 classes). The total number of images is 4158, and the average is 208.

Action Class	Number of Images
BabyCrawling	353
BlowingCandles	153
BodyWeightSquats	341
HandstandPushups	154
HandstandWalking	355
JumpingJack	186
Lunges	217
PullUps	115
PushUps	540
RockClimbingIndoor	134
RopeClimbing	194
Swing	284
TaiChi	196
TrampolineJumping	394
WalkingWithDog	293
WallPushups	131

Table 2: The number of images our dataset contains for each class belonging to the type *Body-Motion Only* (16 classes). The total number of images is 4040, and the average is 253.

Action Class	Number of Images
Drumming	147
PlayingCello	187
PlayingDaf	100
PlayingDhol	187
PlayingFlute	177
PlayingGuitar	200
PlayingPiano	245
PlayingSitar	286
PlayingTabla	102
PlayingViolin	185

Table 3: The number of images our dataset contains for each class belonging to the type *Playing Musical Instruments* (10 classes). The total number of images is 1816, and the average is 182.

Action Class	Number of Images
BandMarching	267
Haircut	244
HeadMassage	240
MilitaryParade	242
SalsaSpin	177

Table 4: The number of images our dataset contains for each class belonging to the type *Human-Human Interaction* (5 classes). The total number of images is 1170, and the average is 234.

Action Class	Number of Images
Archery	214
BalanceBeam	131
BaseballPitch	560
Basketball	643
BasketballDunk	215
BenchPress	122
Biking	293
Billiards	337
Bowling	108
BoxingPunchingBag	136
BoxingSpeedBag	100
BreastStroke	164
CleanAndJerk	339
CliffDiving	192
CricketBowling	271
CricketShot	362
Diving	317
Fencing	149
FieldHockeyPenalty	100
FloorGymnastics	232
FrisbeeCatch	208
FrontCrawl	286
GolfSwing	335
HammerThrow	249
HighJump	244
HorseRace	121
HorseRiding	231
IceDancing	243
JavelinThrow	242
Kayaking	165
LongJump	402
ParallelBars	188
PoleVault	223
PommelHorse	303
Punch	301
Rafting	436
Rowing	100
Shotput	350
Skiing	300
Skijet	173
SkyDiving	313
SoccerPenalty	243
StillRings	127
SumoWrestling	114
Surfing	190
TableTennisShot	389
TennisSwing	427
ThrowDiscus	255
UnevenBars	191
VolleyballSpiking	282

Table 5: The number of images our dataset contains for each class belonging to the type *Sports* (50 classes). The total number of images is 12616, and the average is 252.