

Phrase Localization and Visual Relationship Detection with Comprehensive Image-Language Cues

Supplementary Material

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1. Additional results on Visual Relationship Detection (VRD)

1.1. Phrase detection results

Here, we also include the results on phrase detection on the VRD test set. In the case of relationship detection, we had to output a set of (*subject, predicate, object*) relationships and localize both the *subject* and *object* boxes with an Intersection-Over-Union (IOU) of at least 0.5 with their corresponding ground truth boxes. For phrase detection, the task is to localize the entire relationship as one bounding box (union of subject and object boxes) while ensuring that this box has at least 0.5 overlap with the ground truth relationship box. The phrase detection results follow a similar pattern to the relationship detection results reported in the submission, as shown in Table 1 below.

1.2. Visualization of detected relationships

Below are some example detections on the VRD test set. Figure 1 shows some of the highly confident and correctly localized detections. We detect different types of relationships - spatial (*post, behind, car*), (*sky, above, laptop*), (*laptop, on, table*), clothing (*person, wear, hat*), (*person, has, shorts*), and actions (*person, ride, skateboard*).

Figure 2 shows detections which were marked as negatives by the evaluation code as these relationships were not annotated in the corresponding images. However, note that these predictions are logically correct. The *mouse* is indeed *next to* the *laptop* (leftmost, first row), and the *laptop* is *under* the *sky* (middle, first row). Further, in the leftmost, second row image of Figure 1, the relationship (*person, has, shorts*) was marked as present, whereas the middle, second row image in Figure 2 has (*person, has, hat*) marked as absent, which indicates a lapse in annotation.

Figure 3 shows examples of wrongly detected relationships. Some of these relationships are logically implausible such as (*hat, hold, surfboard*) (leftmost, first row), while others such as (*jeans, on, table*) (middle, first row), while plausible, aren't

Method	Phrase Det.		Rel. Det.		Zero-shot Phrase Det.		Zero-shot Rel. Det.	
	R@100	R@50	R@100	R@50	R@100	R@50	R@100	R@50
(a) Visual Only Model [1]	2.61	2.24	1.85	1.58	1.12	0.95	0.78	0.67
Visual + Language + Likelihood Model [1]	17.03	16.17	14.70	13.86	3.75	3.36	3.52	3.13
VTransE [2]	22.42	19.42	15.20	14.07	3.51	2.65	2.14	1.71
(b) CCA	15.36	11.38	13.69	10.08	12.40	7.78	11.12	6.59
CCA + Size	15.85	11.72	14.05	10.36	12.92	8.04	11.46	6.76
CCA + Size + Position	20.70	16.89	18.37	15.08	15.23	10.86	13.43	9.67

Table 1. Phrase and Relationship detection recall at different thresholds ($R@\{100,50\}$). CCA refers to the combination of six CCA models (see submission). Position refers to the combination of individual box position and pairwise spatial classifiers.

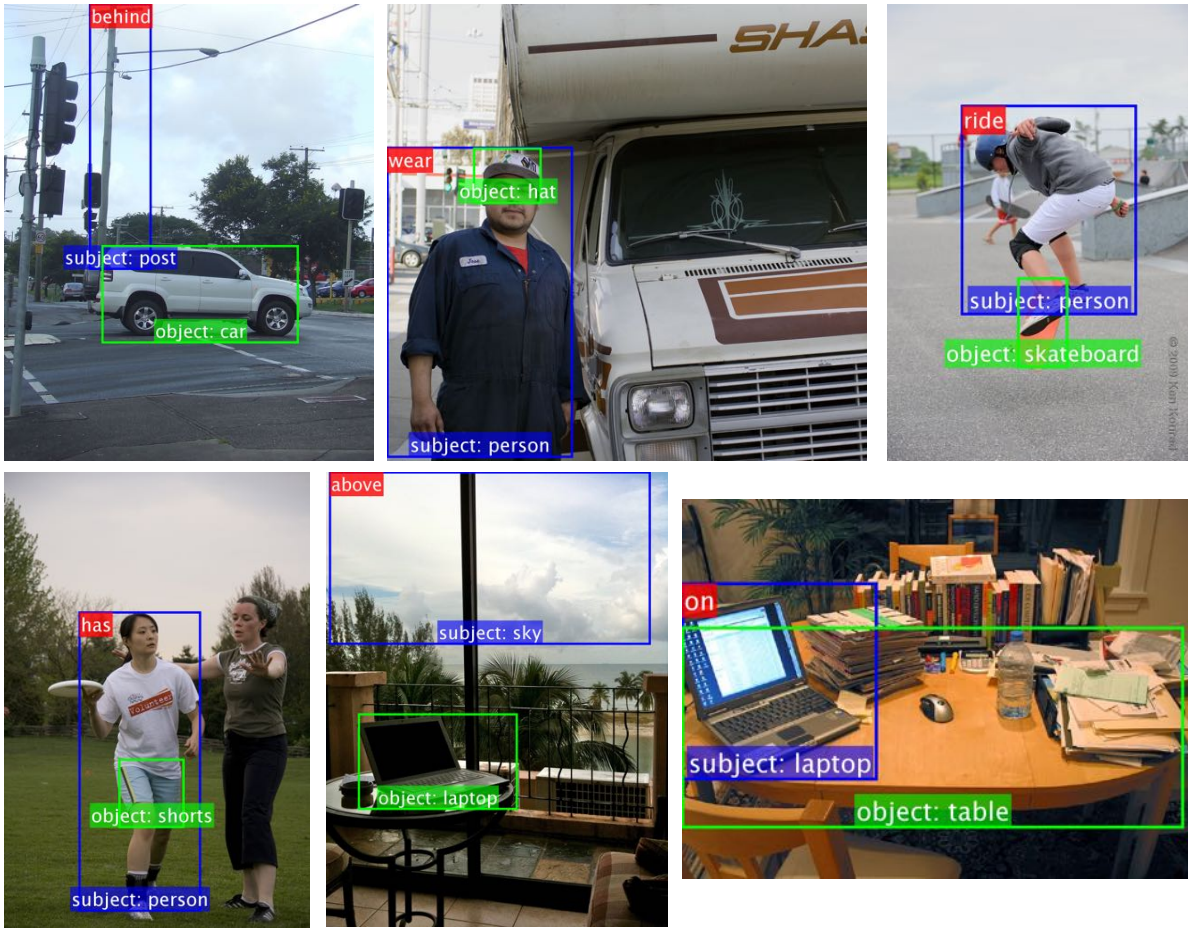


Figure 1. Highly confident and correctly localized relationships on the VRD dataset.

contextually true in the image. Other failure modes include incorrect detections such as the *sky* in the (rightmost, first row) image and the *phone* in the (leftmost, second row) image.

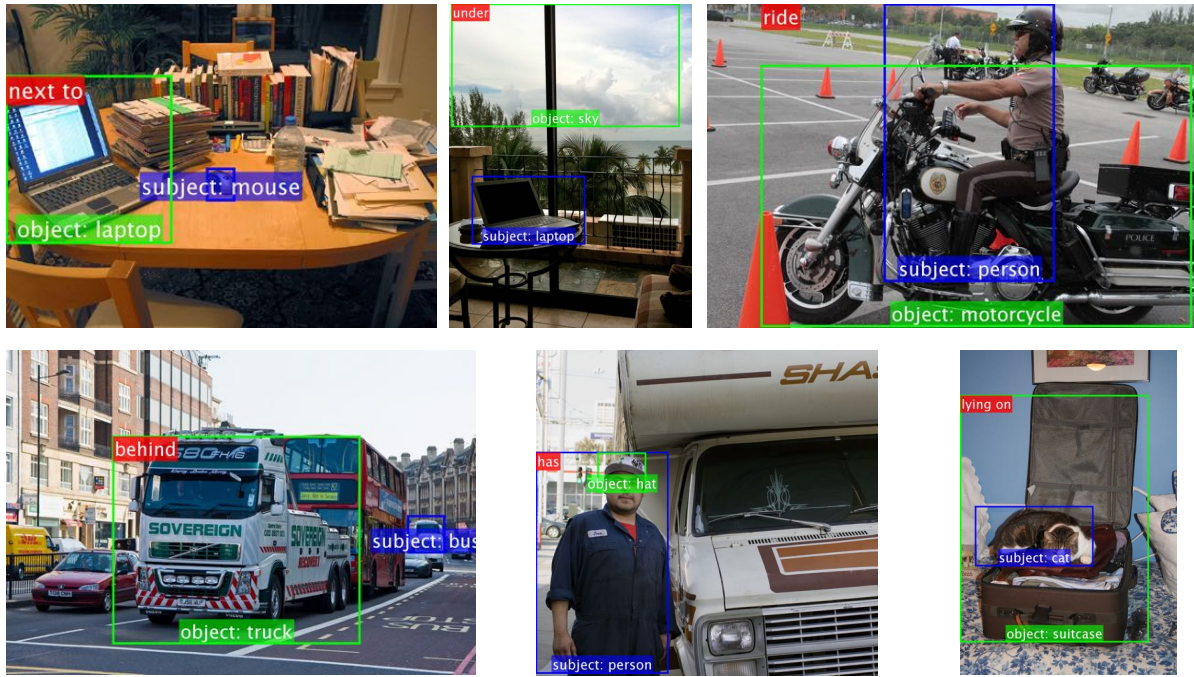


Figure 2. Plausible and logically correct detected relationships, penalized as negatives due to lack of annotations in the VRD dataset.

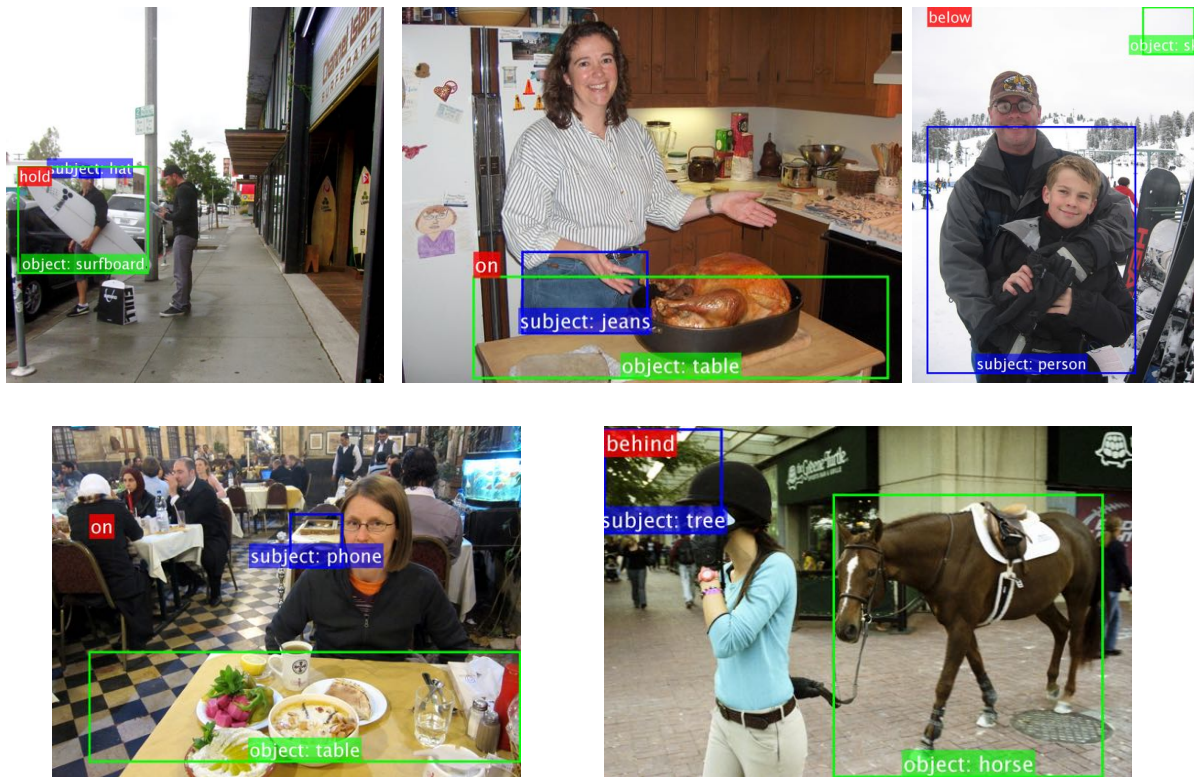


Figure 3. Falsely detected relationships on the VRD dataset. Mistakes are either due to incorrect localization of objects, prediction of implausible relationships, contextually incorrect relationships, or a combination of mistakes.

2. List of detector classes from Flickr30k Entities

2.1. Adjectives

1) white	2) people-white	3) female	4) empty	5) new
6) black	7) people-black	8) grassy	9) wet	10) colored
11) red	12) people-red	13) sunny	14) smiling	15) professional
16) brown	17) people-blond	18) snowy	19) african	20) indoor
21) gray	22) people-blue	23) male	24) indian	25) oriental
26) blond	27) people-green	28) crowded	29) bald	30) cold
31) blue	32) people-yellow	33) shirtless	34) american	35) hot
36) green	37) young	38) dirt	39) dark-haired	40) dark-skinned
41) orange	42) younger	43) paved	44) teenage	45) cloudy
46) pink	47) older	48) rocky	49) urban	50) military
51) purple	52) asian	53) hard	54) light	55) hooded
56) yellow	57) dark	58) beautiful	59) sandy	60) adult
61) golden	62) elderly	63) bright	64) chinese	65) little
66) tan	67) old	68) concrete	69) outdoors	70) long
71) colorful	72) wooden	73) full	74) plastic	75) tall
76) striped	77) middle-aged	78) multicolored	79) bearded	80) huge
81) short	82) high	83) top		

2.2. Subject-Verb

1) animals-catching	2) animals-climbing	3) animals-digging	4) animals-fighting
5) animals-flying	6) animals-holding	7) animals-jumping	8) animals-playing
9) animals-running	10) animals-sitting	11) animals-sleeping	12) animals-splashing
13) animals-standing	14) animals-swimming	15) animals-walking	16) bodyparts-holding
17) bodyparts-sitting	18) bodyparts-walking	19) clothing-climbing	20) clothing-dancing
21) clothing-eating	22) clothing-holding	23) clothing-jumping	24) clothing-performing
25) clothing-playing	26) clothing-posing	27) clothing-reading	28) clothing-riding
29) clothing-running	30) clothing-singing	31) clothing-sitting	32) clothing-sleeping
33) clothing-smiling	34) clothing-standing	35) clothing-talking	36) clothing-walking
37) clothing-working	38) instruments-singing	39) other-cooking	40) other-drinking
41) other-eating	42) other-flying	43) other-holding	44) other-jumping
45) other-performing	46) other-playing	47) other-pointing	48) other-posing
49) other-reading	50) other-riding	51) other-running	52) other-singing
53) other-sitting	54) other-sleeping	55) other-smiling	56) other-standing
57) other-talking	58) other-throwing	59) other-walking	60) other-working
61) other-writing	62) people-blowing	63) people-catching	64) people-cleaning
65) people-climbing	66) people-cooking	67) people-cutting	68) people-dancing
69) people-digging	70) people-drawing	71) people-drinking	72) people-driving
73) people-eating	74) people-falling	75) people-fighting	76) people-fishing
77) people-flying	78) people-hiking	79) people-hit	80) people-holding
81) people-hugging	82) people-juggling	83) people-jumping	84) people-kicking
85) people-kissing	86) people-kneeling	87) people-laughing	88) people-painting
89) people-performing	90) people-playing	91) people-pointing	92) people-posing
93) people-pushing	94) people-reaching	95) people-reading	96) people-riding
97) people-running	98) people-serving	99) people-shopping	100) people-singing
101) people-sitting	102) people-skiing	103) people-sleeping	104) people-sliding
105) people-smiling	106) people-smoking	107) people-splashing	108) people-standing
109) people-surfing	110) people-sweeping	111) people-swimming	112) people-swinging
113) people-talking	114) people-throwing	115) people-touches	116) people-walking
117) people-waving	118) people-working	119) people-writing	120) scene-eating
121) scene-holding	122) scene-playing	123) scene-reading	124) scene-running
125) scene-sitting	126) scene-standing	127) scene-talking	128) scene-walking
129) vehicles-driving	130) vehicles-holding	131) vehicles-running	132) vehicles-sitting
133) vehicles-throwing	134) sitting	135) holding	136) playing
137) standing	138) walking	139) running	140) riding
141) jumping	142) working	143) talking	144) performing
145) eating	146) posing	147) climbing	148) hiking
149) reading	150) dancing	151) smiling	152) singing
153) sleeping	154) pushing	155) swimming	156) throwing
157) painting	158) driving	159) cooking	160) cutting
161) cleaning	162) serving	163) swinging	164) laughing
165) kicking	166) hit	167) fighting	168) juggling
169) flying	170) kissing	171) pointing	172) blowing
173) sliding	174) drinking	175) fishing	176) writing
177) skiing	178) catching	179) kneeling	180) hugging
181) digging	182) smoking	183) shopping	184) surfing
185) waving	186) sweeping	187) falling	188) reaching
189) drawing	190) splashing	191) touches	

2.3. Verb-Object

1) other-blowing	2) other-catching	3) scene-catching	4) other-cleaning
5) scene-cleaning	6) bodyparts-climbing	7) other-climbing	8) scene-climbing
9) bodyparts-cooking	10) other-cooking	11) bodyparts-cutting	12) other-cutting
13) clothing-dancing	14) other-dancing	15) people-dancing	16) scene-dancing
17) other-digging	18) scene-digging	19) other-drawing	20) other-drinking
21) scene-drinking	22) other-driving	23) scene-driving	24) vehicles-driving
25) other-eating	26) people-eating	27) scene-eating	28) other-falling
29) scene-falling	30) other-fighting	31) scene-fishing	32) other-flying
33) scene-flying	34) scene-hiking	35) other-hit	36) people-hit
37) animals-holding	38) bodyparts-holding	39) clothing-holding	40) instruments-holding
41) other-holding	42) people-holding	43) scene-holding	44) vehicles-holding
45) people-hugging	46) other-juggling	47) animals-jumping	48) bodyparts-jumping
49) other-jumping	50) people-jumping	51) scene-jumping	52) vehicles-jumping
53) other-kicking	54) people-kicking	55) people-kissing	56) scene-kissing
57) other-kneeling	58) scene-kneeling	59) other-laughing	60) people-laughing
61) other-painting	62) scene-painting	63) instruments-performing	64) other-performing
65) people-performing	66) scene-performing	67) animals-playing	68) clothing-playing
69) instruments-playing	70) other-playing	71) people-playing	72) scene-playing
73) vehicles-playing	74) bodyparts-pointing	75) other-pointing	76) people-pointing
77) scene-pointing	78) bodyparts-posing	79) clothing-posing	80) other-posing
81) people-posing	82) scene-posing	83) other-pushing	84) people-pushing
85) vehicles-pushing	86) other-reaching	87) scene-reaching	88) other-reading
89) people-reading	90) animals-riding	91) other-riding	92) people-riding
93) scene-riding	94) vehicles-riding	95) animals-running	96) bodyparts-running
97) clothing-running	98) other-running	99) people-running	100) scene-running
101) vehicles-running	102) other-serving	103) people-serving	104) other-shopping
105) instruments-singing	106) other-singing	107) people-singing	108) animals-sitting
109) bodyparts-sitting	110) clothing-sitting	111) instruments-sitting	112) other-sitting
113) people-sitting	114) scene-sitting	115) vehicles-sitting	116) scene-skiing
117) bodyparts-sleeping	118) other-sleeping	119) people-sleeping	120) scene-sleeping
121) other-sliding	122) scene-sliding	123) bodyparts-smiling	124) clothing-smiling
125) other-smiling	126) people-smiling	127) scene-smiling	128) other-smoking
129) scene-splashing	130) animals-standing	131) bodyparts-standing	132) clothing-standing
133) other-standing	134) people-standing	135) scene-standing	136) vehicles-standing
137) scene-surfing	138) other-sweeping	139) scene-sweeping	140) other-swimming
141) scene-swimming	142) other-swinging	143) clothing-talking	144) other-talking
145) people-talking	146) scene-talking	147) other-throwing	148) people-throwing
149) scene-throwing	150) bodyparts-touches	151) other-touches	152) animals-walking
153) bodyparts-walking	154) clothing-walking	155) other-walking	156) people-walking
157) scene-walking	158) vehicles-walking	159) bodyparts-waving	160) other-waving
161) people-waving	162) clothing-working	163) other-working	164) people-working
165) scene-working	166) vehicles-working	167) other-writing	168) sitting
169) holding	170) playing	171) standing	172) walking
173) running	174) riding	175) jumping	176) working
177) talking	178) performing	179) eating	180) posing
181) climbing	182) hiking	183) reading	184) dancing
185) smiling	186) singing	187) sleeping	188) pushing
189) swimming	190) throwing	191) painting	192) driving
193) cooking	194) cutting	195) cleaning	196) serving
197) swinging	198) laughing	199) kicking	200) hit
201) fighting	202) juggling	203) flying	204) kissing
205) pointing	206) blowing	207) sliding	208) drinking
209) fishing	210) writing	211) skiing	212) catching
213) kneeling	214) hugging	215) digging	216) smoking
217) shopping	218) surfing	219) waving	220) sweeping
221) falling	222) reaching	223) drawing	224) splashing
225) touches			

3. List of phrase-pair relationships from Flickr30k Entities

3.1. Verbs

1) dog-catching-frisbee	2) dog-holding-stick	3) dog-jumping-ball	4) dog-jumping-frisbee
5) dog-jumping-hurdle	6) dog-jumping-people	7) dog-jumping-water	8) dog-playing-ball
9) dog-running-beach	10) dog-running-field	11) dog-running-grass	12) dog-running-snow
13) dog-running-water	14) dog-swimming-water	15) dogs-playing-grass	16) dogs-playing-snow
17) dogs-running-field	18) dogs-running-grass	19) people-blowing-bubbles	20) people-catching-ball
21) people-catching-wave	22) people-cleaning-dishes	23) people-climbing-mountain	24) people-climbing-rock
25) people-climbing-rock+wall	26) people-climbing-rocks	27) people-climbing-tree	28) people-climbing-wall
29) people-cooking-food	30) people-cutting-cake	31) people-dancing-people	32) people-dancing-stage
33) people-digging-snow	34) people-drinking-beer	35) people-eating-food	36) people-eating-meal
37) people-eating-table	38) people-hit-ball	39) people-hit-tennis+ball	40) people-holding-ball
41) people-holding-book	42) people-holding-box	43) people-holding-camera	44) people-holding-cup
45) people-holding-dog	46) people-holding-drink	47) people-holding-flag	48) people-holding-flags
49) people-holding-flowers	50) people-holding-football	51) people-holding-guitar	52) people-holding-microphone
53) people-holding-object	54) people-holding-people	55) people-holding-rope	56) people-holding-shovel
57) people-holding-sign	58) people-holding-signs	59) people-holding-something	60) people-holding-stick
61) people-holding-tennis+racket	62) people-hugging-people	63) people-jumping-ball	64) people-jumping-bed
65) people-jumping-bike	66) people-jumping-hurdle	67) people-jumping-people	68) people-jumping-pool
69) people-jumping-ramp	70) people-jumping-rock	71) people-jumping-swimming+pool	72) people-jumping-trampoline
73) people-jumping-water	74) people-kicking-ball	75) people-kicking-people	76) people-kicking-soccer+ball
77) people-kissing-people	78) people-laughing-people	79) people-painting-picture	80) people-performing-people
81) people-performing-stage	82) people-playing-accordion	83) people-playing-bagpipes	84) people-playing-ball
85) people-playing-basketball	86) people-playing-beach	87) people-playing-board+game	88) people-playing-cello
89) people-playing-dog	90) people-playing-drum	91) people-playing-drums	92) people-playing-flute
93) people-playing-football	94) people-playing-fountain	95) people-playing-frisbee	96) people-playing-game
97) people-playing-guitar	98) people-playing-guitars	99) people-playing-instrument	100) people-playing-instruments
101) people-playing-keyboard	102) people-playing-people	103) people-playing-piano	104) people-playing-pool
105) people-playing-sand	106) people-playing-saxophone	107) people-playing-snow	108) people-playing-soccer
109) people-playing-stage	110) people-playing-swing	111) people-playing-toy	112) people-playing-toys
113) people-playing-trumpet	114) people-playing-violin	115) people-playing-volleyball	116) people-playing-water
117) people-posing-people	118) people-posing-picture	119) people-pushing-cart	120) people-pushing-people
121) people-pushing-stroller	122) people-reading-book	123) people-reading-magazine	124) people-reading-newspaper
125) people-reading-paper	126) people-riding-bicycle	127) people-riding-bicycles	128) people-riding-bike
129) people-riding-bikes	130) people-riding-bull	131) people-riding-dirt+bike	132) people-riding-horse
133) people-riding-horses	134) people-riding-motorbike	135) people-riding-motorcycle	136) people-riding-people
137) people-riding-scooter	138) people-riding-skateboard	139) people-riding-street	140) people-riding-surfboard
141) people-riding-unicycle	142) people-riding-wave	143) people-running-ball	144) people-running-beach
145) people-running-field	146) people-running-grass	147) people-running-people	148) people-running-road
149) people-running-sidewalk	150) people-running-street	151) people-running-track	152) people-running-water
153) people-serving-food	154) people-singing-guitar	155) people-singing-microphone	156) people-singing-people
157) people-sitting-beach	158) people-sitting-bed	159) people-sitting-bench	160) people-sitting-benches
161) people-sitting-bike	162) people-sitting-blanket	163) people-sitting-boat	164) people-sitting-building
165) people-sitting-chair	166) people-sitting-chairs	167) people-sitting-couch	168) people-sitting-curb
169) people-sitting-desk	170) people-sitting-dock	171) people-sitting-floor	172) people-sitting-grass
173) people-sitting-horse	174) people-sitting-ledge	175) people-sitting-motorcycle	176) people-sitting-park+bench
177) people-sitting-people	178) people-sitting-rock	179) people-sitting-rocks	180) people-sitting-sidewalk
181) people-sitting-steps	182) people-sitting-stool	183) people-sitting-street	184) people-sitting-swing
185) people-sitting-table	186) people-sitting-tables	187) people-sitting-tree	188) people-sitting-wall
189) people-sitting-water	190) people-sleeping-bench	191) people-sleeping-chair	192) people-sleeping-couch
193) people-sleeping-grass	194) people-sleeping-people	195) people-sliding-base	196) people-sliding-slide
197) people-smiling-people	198) people-smoking-cigarette	199) people-standing-beach	200) people-standing-boat
201) people-standing-bridge	202) people-standing-building	203) people-standing-car	204) people-standing-counter
205) people-standing-door	206) people-standing-doorway	207) people-standing-fence	208) people-standing-field
209) people-standing-grass	210) people-standing-ladder	211) people-standing-line	212) people-standing-people
213) people-standing-platform	214) people-standing-podium	215) people-standing-road	216) people-standing-rock
217) people-standing-rocks	218) people-standing-sidewalk	219) people-standing-sign	220) people-standing-snow
221) people-standing-stage	222) people-standing-street	223) people-standing-table	224) people-standing-tree
225) people-standing-wall	226) people-standing-water	227) people-surfing-wave	228) people-swimming-pool
229) people-swinging-bat	230) people-swinging-swing	231) people-talking-cellphone	232) people-talking-microphone
233) people-talking-people	234) people-talking-phone	235) people-throwing-ball	236) people-throwing-frisbee
237) people-throwing-people	238) people-walking-beach	239) people-walking-bicycle	240) people-walking-bike
241) people-walking-bridge	242) people-walking-building	243) people-walking-city+street	244) people-walking-dog
245) people-walking-dogs	246) people-walking-field	247) people-walking-grass	248) people-walking-hill
249) people-walking-path	250) people-walking-people	251) people-walking-road	252) people-walking-sidewalk
253) people-walking-snow	254) people-walking-stairs	255) people-walking-street	256) people-walking-trail
257) people-walking-wall	258) people-walking-water	259) people-working-machine	260) people-working-people

3.2. Prepositions

1) ball-in-mouth	2) bicycle-on-street	3) boat-in-water	4) building-in-people
5) dog-in-ball	6) dog-in-collar	7) dog-in-dog	8) dog-in-field
9) dog-in-grass	10) dog-in-snow	11) dog-in-stick	12) dog-in-toy
13) dog-in-water	14) dog-on-beach	15) dog-on-grass	16) dog-on-hind+legs
17) dog-on-leash	18) dogs-in-dogs	19) dogs-in-field	20) dogs-in-grass
21) dogs-in-snow	22) dogs-in-water	23) dogs-on-grass	24) guitar-in-people
25) hands-in-people	26) object-in-mouth	27) one-in-shirt	28) other-in-shirt
29) people-across-street	30) people-behind-building	31) people-behind-counter	32) people-behind-fence
33) people-behind-people	34) people-between-people	35) people-in-area	36) people-in-back
37) people-in-ball	38) people-in-bed	39) people-in-bicycle	40) people-in-bike
41) people-in-blanket	42) people-in-boat	43) people-in-body+water	44) people-in-building
45) people-in-camera	46) people-in-cane	47) people-in-canoe	48) people-in-car
49) people-in-cart	50) people-in-chair	51) people-in-chairs	52) people-in-cigarette
53) people-in-colors	54) people-in-dirt	55) people-in-dog	56) people-in-dogs
57) people-in-doorway	58) people-in-face+paint	59) people-in-field	60) people-in-flowers
61) people-in-football	62) people-in-fountain	63) people-in-gear	64) people-in-grass
65) people-in-guitar	66) people-in-highchair	67) people-in-instruments	68) people-in-kayak
69) people-in-kitchen	70) people-in-lake	71) people-in-line	72) people-in-microphone
73) people-in-mirror	74) people-in-mud	75) people-in-number	76) people-in-ocean
77) people-in-park	78) people-in-people	79) people-in-pool	80) people-in-river
81) people-in-room	82) people-in-sand	83) people-in-snow	84) people-in-soccer+ball
85) people-in-street	86) people-in-stroller	87) people-in-swimming+pool	88) people-in-swing
89) people-in-towel	90) people-in-toy	91) people-in-toys	92) people-in-tree
93) people-in-tub	94) people-in-water	95) people-in-wheelchair	96) people-in-yard
97) people-near-beach	98) people-near-brick+wall	99) people-near-building	100) people-near-car
101) people-near-fence	102) people-near-fountain	103) people-near-lake	104) people-near-people
105) people-near-pole	106) people-near-road	107) people-near-sidewalk	108) people-near-street
109) people-near-table	110) people-near-tree	111) people-near-wall	112) people-near-water
113) people-near-window	114) people-on-back	115) people-on-balcony	116) people-on-beach
117) people-on-bed	118) people-on-bench	119) people-on-benches	120) people-on-bicycle
121) people-on-bicycles	122) people-on-bike	123) people-on-bikes	124) people-on-blanket
125) people-on-board	126) people-on-boat	127) people-on-bridge	128) people-on-building
129) people-on-bus	130) people-on-cellphone	131) people-on-chair	132) people-on-chairs
133) people-on-city+street	134) people-on-cliff	135) people-on-computer	136) people-on-couch
137) people-on-curb	138) people-on-deck	139) people-on-dock	140) people-on-fence
141) people-on-field	142) people-on-floor	143) people-on-grass	144) people-on-grill
145) people-on-hill	146) people-on-horse	147) people-on-horses	148) people-on-ice
149) people-on-ladder	150) people-on-lawn	151) people-on-ledge	152) people-on-machine
153) people-on-mat	154) people-on-motorcycle	155) people-on-motorcycles	156) people-on-mountain
157) people-on-park+bench	158) people-on-path	159) people-on-pavement	160) people-on-people
161) people-on-phone	162) people-on-pier	163) people-on-platform	164) people-on-porch
165) people-on-raft	166) people-on-rail	167) people-on-railing	168) people-on-ramp
169) people-on-road	170) people-on-rock	171) people-on-rocks	172) people-on-roof
173) people-on-rope	174) people-on-sand	175) people-on-scaffold	176) people-on-scaffolding
177) people-on-scooter	178) people-on-shore	179) people-on-side+road	180) people-on-sidewalk
181) people-on-skateboard	182) people-on-sled	183) people-on-slide	184) people-on-snowboard
185) people-on-soccer+field	186) people-on-sofa	187) people-on-stage	188) people-on-stairs
189) people-on-step	190) people-on-steps	191) people-on-stilts	192) people-on-stool
193) people-on-street	194) people-on-surfboard	195) people-on-swing	196) people-on-table
197) people-on-tire+swing	198) people-on-track	199) people-on-trail	200) people-on-train
201) people-on-trampoline	202) people-on-tree	203) people-on-walkway	204) people-on-wall
205) people-on-water	206) people-on-wave	207) people-under-tree	208) shirt-in-people
209) something-in-mouth	210) stick-in-mouth	211) street-in-people	212) table-in-people
213) tattoo-on-people	214) tennis+ball-in-mouth	215) toy-in-mouth	216) wall-in-graffiti

3.3. Clothing and Body Part Attachment

1) people-apron	2) people-aprons	3) people-arms	4) people-attire
5) people-backpack	6) people-backpacks	7) people-bag	8) people-bags
9) people-ball+cap	10) people-bandanna	11) people-baseball+cap	12) people-baseball+uniform
13) people-bathing+suit	14) people-bathing+suits	15) people-beanie	16) people-beard
17) people-beret	18) people-bikini	19) people-bikinis	20) people-black
21) people-black+shirt	22) people-black+white	23) people-blond-hair	24) people-blouse
25) people-blue	26) people-body	27) people-boots	28) people-brown
29) people-brown+jacket	30) people-brown+shirt	31) people-business+attire	32) people-business+suit
33) people-camouflage	34) people-cap	35) people-checked+shirt	36) people-clothes
37) people-clothing	38) people-coat	39) people-coats	40) people-collared+shirt
41) people-costume	42) people-costumes	43) people-cowboy+hat	44) people-cowboy+hats
45) people-curly+hair	46) people-denim+jacket	47) people-dreadlocks	48) people-dress
49) people-dress+shirt	50) people-dresses	51) people-eyes	52) people-face
53) people-faces	54) people-feet	55) people-finger	56) people-fingers
57) people-flip-flops	58) people-garb	59) people-glasses	60) people-gloves
61) people-goggles	62) people-gold	63) people-gray	64) people-green
65) people-hair	66) people-haircut	67) people-hand	68) people-hands
69) people-harness	70) people-hat	71) people-hats	72) people-head
73) people-headband	74) people-headphones	75) people-heads	76) people-headscarf
77) people-heels	78) people-helmet	79) people-helmets	80) people-hoodie
81) people-jacket	82) people-jackets	83) people-jean+shorts	84) people-jeans
85) people-jersey	86) people-jerseys	87) people-jumpsuit	88) people-khaki+pants
89) people-kilt	90) people-knees	91) people-lab+coat	92) people-lap
93) people-leather+jacket	94) people-leg	95) people-legs	96) people-leotard
97) people-life+jacket	98) people-life+jackets	99) people-makeup	100) people-mask
101) people-mohawk	102) people-mouth	103) people-mustache	104) people-necklace
105) people-nose	106) people-orange	107) people-orange+dress	108) people-orange+hat
109) people-orange+jacket	110) people-orange+shirt	111) people-orange+vest	112) people-orange+vests
113) people-outfit	114) people-outfits	115) people-overalls	116) people-pajamas
117) people-pants	118) people-people	119) people-pigtails	120) people-pink
121) people-pink+coat	122) people-pink+dress	123) people-pink+hat	124) people-pink+jacket
125) people-pink+outfit	126) people-pink+pants	127) people-pink+shirt	128) people-pink+sweater
129) people-plaid+shirt	130) people-polo+shirt	131) people-ponytail	132) people-purple
133) people-purple+shirt	134) people-purse	135) people-red	136) people-red+white
137) people-red-hair	138) people-ring	139) people-robe	140) people-robos
141) people-rock+face	142) people-safety+vest	143) people-safety+vests	144) people-sandals
145) people-scarf	146) people-scrubs	147) people-shirt	148) people-shirts
149) people-shoe	150) people-shoes	151) people-shopping+bag	152) people-shopping+bags
153) people-shorts	154) people-shoulder	155) people-shoulders	156) people-skirt
157) people-skirts	158) people-sleeveless+shirt	159) people-smile	160) people-sneakers
161) people-snowshoes	162) people-snowsuit	163) people-socks	164) people-straw+hat
165) people-striped+shirt	166) people-suit	167) people-suits	168) people-sunglasses
169) people-suspenders	170) people-sweater	171) people-sweatshirt	172) people-swim+trunks
173) people-swimming+trunks	174) people-swimsuit	175) people-swimsuits	176) people-t-shirt
177) people-t-shirts	178) people-tan+jacket	179) people-tan+pants	180) people-tan+shirt
181) people-tank	182) people-tank+top	183) people-tattoo	184) people-tattoos
185) people-teeth	186) people-thumbs	187) people-tie	188) people-tongue
189) people-top	190) people-tops	191) people-trunks	192) people-turban
193) people-tuxedo	194) people-umbrella	195) people-umbrellas	196) people-underwear
197) people-uniform	198) people-uniforms	199) people-vest	200) people-vests
201) people-wedding+dress	202) people-wetsuit	203) people-white	204) people-wig
205) people-winter+clothes	206) people-winter+clothing	207) people-yellow	

References

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