









ParallelEdits 재현

| 원본 프롬프트                                                                                   | 타겟 프롬프트                                                                                                                | Editing                                                                                                                                                                                                                                                                                                                                                                                                                          | Obj-adj-pair                                                                       | 원본 이미지                                                                                | 결과 이미지                                                                                |
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| a man sitting in a boat is silhouetted against the sunset with mountain in the background | a man standing in a boat is silhouetted against the sunset and ducks on the water with Alps mountain in the background | <pre>{   "man standing": {     "position": 2,     "edit_type": 5,     "action": "man sitting"   },   "ducks on the water": {     "position": 11,     "edit_type": 2,     "action": "+"   },   "Alps mountain": {     "position": 12,     "edit_type": 1,     "action": "mountain"   } }</pre>                                                                                                                                    | <pre>{   "man": ["standing"],   "ducks": [],   "mountain": ["Alps"] }</pre>        |    |    |
| a slanted mountain bicycle on the road in front of a building                             | a slanted [rusty] mountain [motorcycle] in front of a [fence]                                                          | <pre>{   "rusty": {     "position": 2,     "edit_type": 7,     "action": "+"   },   "motorcycle": {     "position": 3,     "edit_type": 1,     "action": "bicycle"   },   "fence": {     "position": 11,     "edit_type": 8,     "action": "building"   },   "on the road": {     "position": 4,     "edit_type": 3,     "action": "-"   } }</pre>                                                                               | <pre>{   "motorcycle": ["rusty"],   "fence": [],   "road": [] }</pre>              |    |    |
| a cat sitting on a wooden chair                                                           | a [red] [dog] [with flowers in mouth] [standing] on a [metal] chair                                                    | <pre>{   "red": {     "position": 1,     "edit_type": 6,     "action": "+"   },   "dog": {     "position": 1,     "edit_type": 1,     "action": "cat"   },   "with flowers in mouth": {     "position": 2,     "edit_type": 2,     "action": "+"   },   "standing": {     "position": 2,     "edit_type": 5,     "action": "sitting"   },   "metal": {     "position": 5,     "edit_type": 7,     "action": "wooden"   } }</pre> | <pre>{   "dog": ["red", "standing"],   "chair": ["metal"],   "flowers": [] }</pre> |   |   |
| blue light, a black and white cat is playing with a flower                                | blue light, a black and white [dog] is playing with a [yellow] [ball]                                                  | <pre>{   "dog": {     "position": 6,     "edit_type": 1,     "action": "cat"   },   "yellow": {     "position": 11,     "edit_type": 6,     "action": "+"   },   "ball": {     "position": 12,     "edit_type": 1,     "action": "flower"   } }</pre>                                                                                                                                                                            | <pre>{   "dog": [],   "ball": ["yellow"] }</pre>                                   |  |  |

















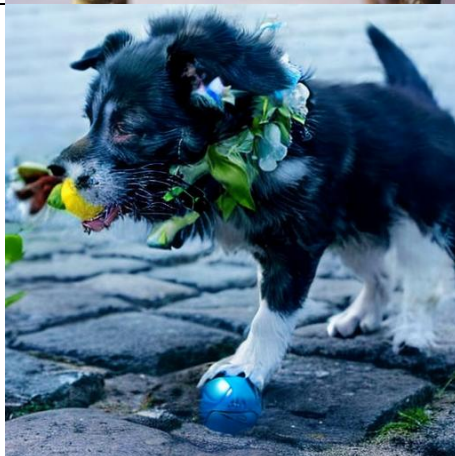

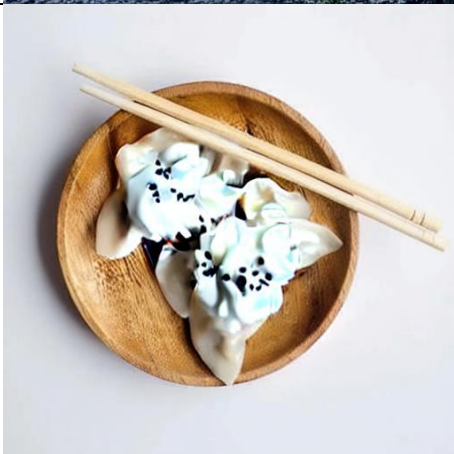


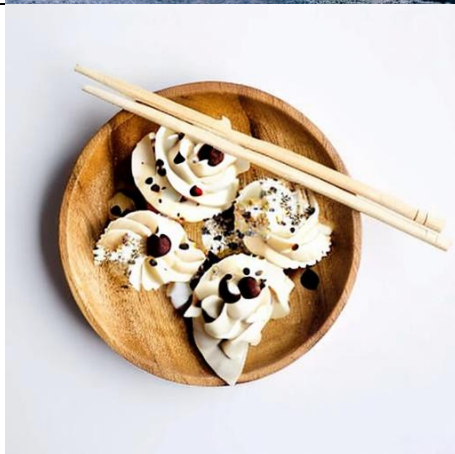
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| three white dumplings on brown wooden bowl       | three white [cupcakes] on [black] [metal] bowl           | {'cupcakes': {'position': 2, 'edit_type': 1, 'action': 'dumplings'},<br>'black': {'position': 4, 'edit_type': 6, 'action': 'brown'},<br>'metal': {'position': 5, 'edit_type': 7, 'action': '+'}} | {'cupcakes': [], 'bowl': ['black', 'metal']} |     |     |
| the two people are standing on rocks with a fish | the two [old] people are [sitting] on [boat] with a fish | {'old': {'position': 2, 'edit_type': 4, 'action': '+'},<br>'sitting': {'position': 4, 'edit_type': 5, 'action': 'standing'},<br>'boat': {'position': 6, 'edit_type': 1, 'action': 'rocks'}}      | {'people': ['old', 'sitting'], 'boat': []}   |    |    |
| a rose on the rail                               | a [white] [tulip] on the rail                            | {'white': {'position': 1, 'edit_type': 6, 'action': '+'},<br>'tulip': {'position': 1, 'edit_type': 1, 'action': 'rose'}}                                                                         | {'tulip': ['white']}                         |   |   |
| a woman with blue hair wearing a shirt           | a woman with [red] hair wearing a [coat]                 | {'red': {'position': 3, 'edit_type': 6, 'action': 'blue'},<br>'coat': {'position': 7, 'edit_type': 1, 'action': 'shirt'}}                                                                        | {'hair': ['red'], 'coat': []}                |  |  |



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| a cat sitting with beads collar                  | a [orange] cat sitting with [cotton] [scarf] [putting hands up] | : {'orange': {'position': 1, 'edit_type': 6, 'action': '+'},<br>'cotton': {'position': 4, 'edit_type': 7, 'action': 'beads'},<br>'scarf': {'position': 5, 'edit_type': 1, 'action': 'scarf'},<br>'putting hands up': {'position': 6, 'edit_type': 5, 'action': '+'}}  | {'cat': ['orange', 'putting hands up'], 'scarf': ['cotton']} |     |     |
| sunset over a field with clouds and a bright sky | sunset over a field with [pink] [stars] and a [dark] sky        | {'pink': {'position': 5, 'edit_type': 6, 'action': '+'},<br>'stars': {'position': 5, 'edit_type': 1, 'action': 'clouds'},<br>'dark': {'position': 8, 'edit_type': 8, 'action': 'bright'}}                                                                             | {'stars': ['pink', 'dark': []]}                              |    |    |
| purple tulips in vase                            | [yellow] [roses] in [blue] vase                                 | {'yellow': {'position': 0, 'edit_type': 6, 'action': 'purple'},<br>'roses': {'position': 1, 'edit_type': 1, 'action': 'tulips'},<br>'blue': {'position': 3, 'edit_type': 6, 'action': '+'}}                                                                           | {'roses': ['yellow'], 'vase': ['blue']}                      |   |   |
| photo of horses running in the woods             | [painting] of [white] [unicorns] [standing] in the woods        | {'painting': {'position': 0, 'edit_type': 9, 'action': 'photo'},<br>'white': {'position': 2, 'edit_type': 6, 'action': '+'},<br>'unicorns': {'position': 2, 'edit_type': 1, 'action': 'horses'},<br>'standing': {'position': 3, 'edit_type': 5, 'action': 'running'}} | {'unicorns': ['white', 'standing']}                          |  |  |



PIE-Bench+ + 편집 성능 비교

| 원본 이미지 |                                                                                     |  | SD 1.5 + DDIM scheduler |                                                                                      |  | SDXL + Prompt Engineering |                                                                                       |  | MasaCtrl + SDXL |                                                                                       |  | ParallelEdits |                                                                                       |  |
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