

Figure 1: Result of the diff vectors dimensionality reduction experiment.

In this experiment we sample transforms and explore dimensionality reduction techniques.

## 1 Diff dimensionality reduction

In this experiment we perform dimensionality reduction on 100 diff-vectors of each of 10 transforms. We used the TSNE algorithm with parameters  $\{$ 'n\_components': 2 $\}$ 

The transforms in the caption are as follows:

- 0: color = "#425ef9"
- 1: markerfacecolor = #52a8be
- 2: color = "#8ca7f6"
- 3: markeredgewidth = 2.076071632390681
- 4: markeredgecolor = "#9162dc"
- 5: markerfacecolor = "#dd1bbb"
- 6: linewidth = 2.389004103473481
- 7: marker = 7
- 8: linewidth = 4.284334449537685
- 9: markeredgecolor = "#104920"

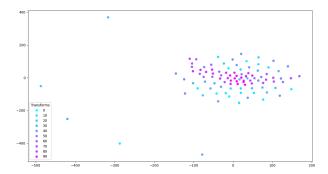


Figure 2: Result of the representative vector dimensionality reduction .

## 2 Diff dimensionality reduction

In this experiment we perform dimensionality reduction on the representative vectors of 100 transforms, each computed using 100 diffs and applying the dimensionality reduction transform. We used the TSNE algorithm with parameters {'n\_components': 2}

The transform in the caption are as follows:

- 0: color = "#3c74f4"
- 1: color = "#4b1adc"
- 2: color = "#4ca380"
- 3: color = "#5290a1"
- 4: color = "#582b42"
- 5: color = "#60a7d7"
- 6: color = #6c3ee5"
- 7: color = "#83431d"
- 8: color = "#8972ee"
- 9: color = "#944d87"
- 10: color = "#a37e8f"
- 11: color = "#a4597e"
- 12: color = "#a85b35"
- 13: color = "#be6320"

- 14: color = "#c70fa4"
- 15: color = #ce51f0"
- 16: color = "#dd9733"
- 17: color = "#dec79e"
- 18: linestyle = (0, (1, 1))
- 19: linestyle = (0, (1, 1))
- 20: linestyle = (0, (1, 1))
- 21: linestyle = (0, (1, 1))
- 22: linestyle = (0, (1, 1))
- 23: linestyle = (0, (1, 10))
- 24: linestyle = (0, (1, 10))
- 25: linestyle = (0, (1, 10))
- 26: linestyle = (0, (3, 1, 1, 1))
- 27: linestyle = (0, (3, 1, 1, 1))
- 28: linestyle = (0, (3, 1, 1, 1, 1, 1))
- 29: linestyle = (0, (3, 10, 1, 10))
- 30: linestyle = (0, (3, 10, 1, 10, 1, 10))
- 31: linestyle = (0, (3, 5, 1, 5))
- 32: linestyle = (0, (3, 5, 1, 5))
- 33: linestyle = (0, (3, 5, 1, 5))
- 34: linestyle = (0, (5, 1))
- 35: linestyle = (0, (5, 1))
- 36: linestyle = (0, (5, 1))
- 37: linestyle = (0, (5, 1))
- 38: linestyle = (0, (5, 10))
- 39: linewidth = 1.5794171336113303
- 40: linewidth = 1.921476141238176
- 41: linewidth = 2.4695465460743935

- 42: linewidth = 2.8571359148988305
- 43: linewidth = 3.6523374617064004
- 44: linewidth = 3.7344803309039243
- 45: linewidth = 3.887035829946397
- 46: linewidth = 3.969783056830418
- 47: linewidth = 4.258112811326695
- 48: linewidth = 4.598207807304818
- 49: marker = "+"
- 50: marker = ","
- 51: marker = "1"
- 52: marker = "|"
- 53: marker = "|"
- 54: marker = "|"
- 55: marker = 1
- 56: marker = 3
- 57: marker = 4
- 58: marker = 5
- 59: marker = 5
- 60: marker = 8
- 61: marker = 9
- 62: markeredgecolor = #20209c
- 63: markeredgecolor = "#20 fc55"
- 64: markeredgecolor = "#416f1f"
- 65: markeredgecolor = "#499f16"
- 66: markeredgecolor = "#65a498"
- 67: markeredgecolor = "#66eba4"
- 68: markeredgecolor = "#8108eb"
- 69: markeredgecolor = "#90eb06"

- 70: markeredgecolor = "#cd6aff"
- 71: markeredgewidth = 1.1906592986924873
- 72: markeredgewidth = 1.410016305262423
- 73: markeredgewidth = 1.7453985045875258
- 74: markeredgewidth = 2.018697904130129
- 75: markeredgewidth = 2.5260351997861314
- 76: markeredgewidth = 2.535401634761661
- 77: markeredgewidth = 2.54500368493689
- 78: markeredgewidth = 2.9531243905916695
- 79: markeredgewidth = 2.9593221922600135
- 80: markeredgewidth = 3.498377302927556
- 81: markeredgewidth = 3.5689909921182554
- 82: markeredgewidth = 3.851003793201624
- 83: markeredgewidth = 4.344539527559817
- 84: markeredgewidth = 4.556090921746117
- 85: markeredgewidth = 4.781634709396156
- 86: markeredgewidth = 4.8237824055472975
- 87: markerfacecolor = "#0c193d"
- 88: markerfacecolor = "#373274"
- 89: markerfacecolor = #45c504
- 90: markerfacecolor = #48008c
- 91: markerfacecolor = #51f8d7
- 92: markerfacecolor = "#682cfe"
- 93: markerfacecolor = "#91939b"
- 94: markerfacecolor = "#ab6acb"
- 95: markerfacecolor = "#b7b2ed"
- 96: markerfacecolor = "#e5951e"
- 97: markerfacecolor = "#e68c23"
- 98: markerfacecolor = "#fa3c27"
- 99: markerfacecolor = "#faf09d"