

2018033_CV_HW4: Q2 Done

Code Files Description:

- spp.py:- The main code file
- Resizes any input image file to 240x240 before making splits
- Image is split into 4, 9, 16, and 25 parts for generating 54 splits.
- Each split contributes 6 features, i.e. a mean and a standard deviation per channel. Since there are 3 channels RGB, $3 \times 2 = 6$ features per split.
- Total $54 \times 6 = 324$ features are collected

How To Run?

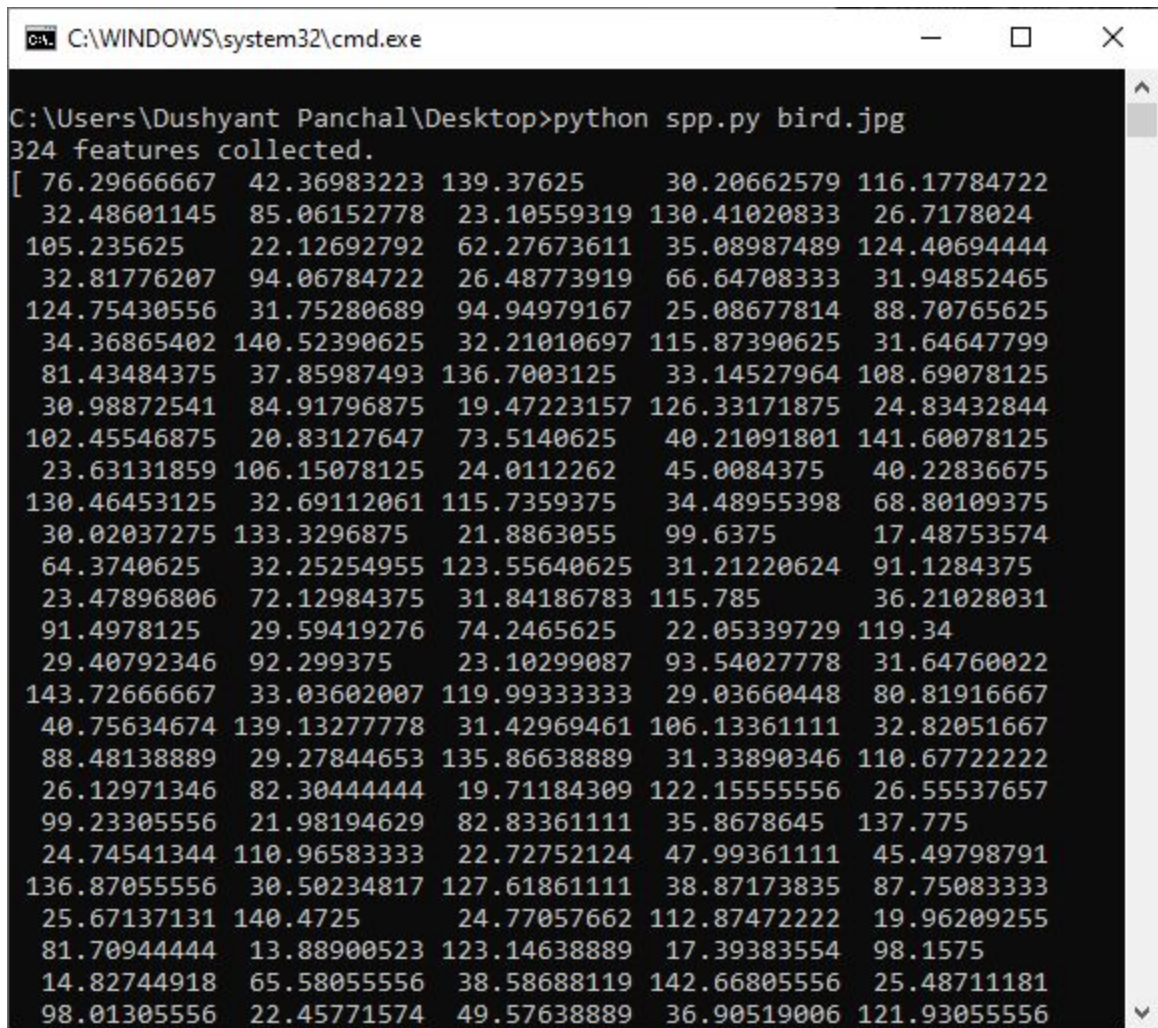
- python <code-file> <image-file>
- E.g. python spp.py bird.jpg

Results:

- Input Image



- Terminal Output



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C:\WINDOWS\system32\cmd.exe

C:\Users\Dushyant Panchal\Desktop>python spp.py bird.jpg
324 features collected.
[ 76.29666667 42.36983223 139.37625 30.20662579 116.17784722
 32.48601145 85.06152778 23.10559319 130.41020833 26.7178024
105.235625 22.12692792 62.27673611 35.08987489 124.40694444
 32.81776207 94.06784722 26.48773919 66.64708333 31.94852465
124.75430556 31.75280689 94.94979167 25.08677814 88.70765625
 34.36865402 140.52390625 32.21010697 115.87390625 31.64647799
 81.43484375 37.85987493 136.7003125 33.14527964 108.69078125
 30.98872541 84.91796875 19.47223157 126.33171875 24.83432844
102.45546875 20.83127647 73.5140625 40.21091801 141.60078125
 23.63131859 106.15078125 24.0112262 45.0084375 40.22836675
130.46453125 32.69112061 115.7359375 34.48955398 68.80109375
 30.02037275 133.3296875 21.8863055 99.6375 17.48753574
 64.3740625 32.25254955 123.55640625 31.21220624 91.1284375
 23.47896806 72.12984375 31.84186783 115.785 36.21028031
 91.4978125 29.59419276 74.2465625 22.05339729 119.34
 29.40792346 92.299375 23.10299087 93.54027778 31.64760022
143.72666667 33.03602007 119.99333333 29.03660448 80.81916667
 40.75634674 139.13277778 31.42969461 106.13361111 32.82051667
 88.48138889 29.27844653 135.86638889 31.33890346 110.67722222
 26.12971346 82.30444444 19.71184309 122.15555556 26.55537657
 99.23305556 21.98194629 82.83361111 35.8678645 137.775
 24.74541344 110.96583333 22.72752124 47.99361111 45.49798791
136.87055556 30.50234817 127.61861111 38.87173835 87.75083333
 25.67137131 140.4725 24.77057662 112.87472222 19.96209255
 81.70944444 13.88900523 123.14638889 17.39383554 98.1575
 14.82744918 65.58055556 38.58688119 142.66805556 25.48711181
 98.01305556 22.45771574 49.57638889 36.90519006 121.93055556

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- Features Created

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[ 76.29666667 42.36983223 139.37625 30.20662579 116.17784722
 32.48601145 85.06152778 23.10559319 130.41020833 26.7178024
105.235625 22.12692792 62.27673611 35.08987489 124.40694444
 32.81776207 94.06784722 26.48773919 66.64708333 31.94852465
124.75430556 31.75280689 94.94979167 25.08677814 88.70765625
 34.36865402 140.52390625 32.21010697 115.87390625 31.64647799
 81.43484375 37.85987493 136.7003125 33.14527964 108.69078125
 30.98872541 84.91796875 19.47223157 126.33171875 24.83432844
102.45546875 20.83127647 73.5140625 40.21091801 141.60078125
 23.63131859 106.15078125 24.0112262 45.0084375 40.22836675
130.46453125 32.69112061 115.7359375 34.48955398 68.80109375
 30.02037275 133.3296875 21.8863055 99.6375 17.48753574
 64.3740625 32.25254955 123.55640625 31.21220624 91.1284375

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23.47896806 72.12984375 31.84186783 115.785 36.21028031
91.4978125 29.59419276 74.2465625 22.05339729 119.34
29.40792346 92.299375 23.10299087 93.54027778 31.64760022
143.72666667 33.03602007 119.99333333 29.03660448 80.81916667
40.75634674 139.13277778 31.42969461 106.13361111 32.82051667
88.48138889 29.27844653 135.86638889 31.33890346 110.67722222
26.12971346 82.30444444 19.71184309 122.15555556 26.55537657
99.23305556 21.98194629 82.83361111 35.8678645 137.775
24.74541344 110.96583333 22.72752124 47.99361111 45.49798791
136.87055556 30.50234817 127.61861111 38.87173835 87.75083333
25.67137131 140.4725 24.77057662 112.87472222 19.96209255
81.70944444 13.88900523 123.14638889 17.39383554 98.1575
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98.01305556 22.45771574 49.57638889 36.90519006 121.93055556
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27.61075109 111.56553819 24.59930717 80.92534722 21.10137115
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