**CS 484, Fall 2017**

**Homework Assignment 3: Image Segmentation (Report)**

**Spectral Mean Shift**

41004

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| --- | --- | --- |
| LUV Window Size | Precision | Recall |
| 0.03 | 0.124061 | 0.23866 |
| 0.032 | 0.122416 | 0.241435 |
| 0.034 | 0.1494 | 0.252536 |
| 0.036 | 0.111856 | 0.231483 |
| 0.038 | 0.139846 | 0.238756 |

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| --- | --- | --- |
| LUV Window Size | Precision | Recall |
| 0.03 | 0.146561 | 0.254171 |
| 0.032 | 0.16747 | 0.252002 |
| 0.034 | 0.158474 | 0.273774 |
| 0.036 | 0.135716 | 0.275609 |
| 0.038 | 0.142781 | 0.267518 |

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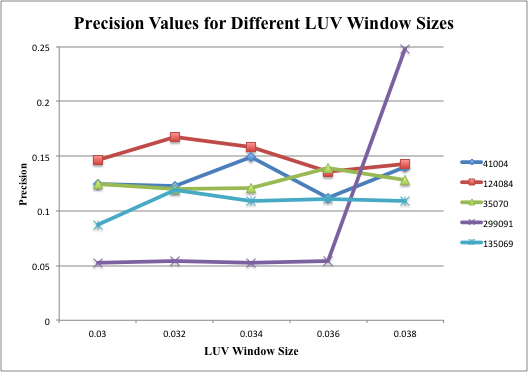
|  |  |  |
| --- | --- | --- |
| LUV Window Size | Precision | Recall |
| 0.03 | 0.124377 | 0.232604 |
| 0.032 | 0.119512 | 0.219183 |
| 0.034 | 0.120414 | 0.231493 |
| 0.036 | 0.138731 | 0.245939 |
| 0.038 | 0.128479 | 0.247393 |

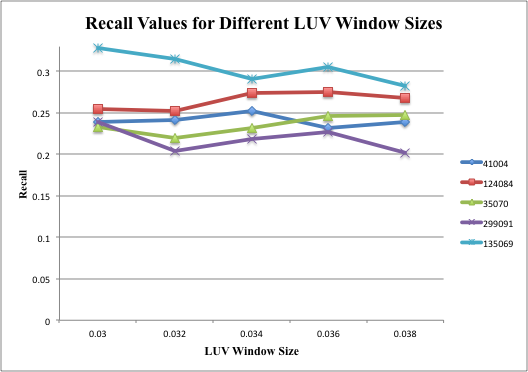
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| LUV Window Size | Precision | Recall |
| 0.03 | 0.052506 | 0.238918 |
| 0.032 | 0.05378 | 0.204162 |
| 0.034 | 0.052647 | 0.218939 |
| 0.036 | 0.054389 | 0.227471 |
| 0.038 | 0.247393 | 0.202081 |

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| LUV Window Size | Precision | Recall |
| 0.03 | 0.087321 | 0.328618 |
| 0.032 | 0.118552 | 0.314472 |
| 0.034 | 0.108793 | 0.290805 |
| 0.036 | 0.110826 | 0.305495 |
| 0.038 | 0.10891 | 0.282644 |





**Spectral + Spatial Mean Shift**

**Varying LUV Window Size (xy\_window = 0.13)**

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| **LUV Window Size** | **Precision** | **Recall** |
| 0.031 | 0.186022 | 0.22134 |
| 0.033 | 0.146101 | 0.251196 |
| 0.035 | 0.176975 | 0.243158 |
| 0.037 | 0.168478 | 0.252153 |
| 0.039 | 0.088491 | 0.134641 |

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| **LUV Window Size** | **Precision** | **Recall** |
| 0.031 | 0.21771 | 0.269686 |
| 0.033 | 0.201386 | 0.286036 |
| 0.035 | 0.206592 | 0.289122 |
| 0.037 | 0.196479 | 0.291375 |
| 0.039 | 0.212407 | 0.265349 |

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| **LUV Window Size** | **Precision** | **Recall** |
| 0.031 | 0.352522 | 0.241323 |
| 0.033 | 0.325564 | 0.255514 |
| 0.035 | 0.265262 | 0.219525 |
| 0.037 | 0.136803 | 0.111216 |
| 0.039 | 0.143742 | 0.136946 |

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| **LUV Window Size** | **Precision** | **Recall** |
| 0.031 | 0.112553 | 0.227471 |
| 0.033 | 0.098886 | 0.132986 |
| 0.035 | 0.199179 | 0.131322 |
| 0.037 | 0.15124 | 0.208117 |
| 0.039 | 0.078781 | 0.175858 |

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| **LUV Window Size** | **Precision** | **Recall** |
| 0.031 | 0.539101 | 0.176279 |
| 0.033 | 0.438467 | 0.161861 |
| 0.035 | 0.476684 | 0.150163 |
| 0.037 | 0.49255 | 0.152884 |
| 0.039 | 0.485264 | 0.192601 |

**Varying XY Window Size (luv\_window = 0.035)**

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| **XY Window Size** | **Precision** | **Recall** |
| 0.11 | 0.197714 | 0.182105 |
| 0.12 | 0.176975 | 0.243158 |
| 0.13 | 0.176975 | 0.243158 |
| 0.14 | 0.176975 | 0.243158 |
| 0.15 | 0.176975 | 0.243158 |

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| **XY Window Size** | **Precision** | **Recall** |
| 0.11 | 0.228314 | 0.238655 |
| 0.12 | 0.253698 | 0.237487 |
| 0.13 | 0.206592 | 0.289122 |
| 0.14 | 0.232176 | 0.329246 |
| 0.15 | 0.232176 | 0.329246 |

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| **XY Window Size** | **Precision** | **Recall** |
| 0.11 | 0.350301 | 0.154129 |
| 0.12 | 0.138068 | 0.032741 |
| 0.13 | 0.265262 | 0.219525 |
| 0.14 | 0.265262 | 0.219525 |
| 0.15 | 0.265262 | 0.219525 |

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| **XY Window Size** | **Precision** | **Recall** |
| 0.11 | 0.181897 | 0.131322 |
| 0.12 | 0.191735 | 0.131322 |
| 0.13 | 0.199179 | 0.131322 |
| 0.14 | 0.19962 | 0.131322 |
| 0.15 | 0.19962 | 0.131322 |

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| **XY Window Size** | **Precision** | **Recall** |
| 0.11 | 0.476684 | 0.150163 |
| 0.12 | 0.476684 | 0.150163 |
| 0.13 | 0.476684 | 0.150163 |
| 0.14 | 0.476684 | 0.150163 |
| 0.15 | 0.476684 | 0.150163 |