Nick Snyder

1.

Diagram

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 4 | 5 | 11 | 13 | 2 | 4 | 5 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 | 4 | 5 | 11 | 13 | 2 | 4 | 5 | 5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 3 | 1 | 6 | 2 | 11 | 2 | 1 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 4 | 7 | 8 | 13 | 13 | 3 | 1 |

A graph with blue lines and dots

Description automatically generated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 4 | 7 | 8 | 13 | 13 | 3 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| -4 | -3 | 0 | 1 | 6 | 6 | 4 | -6 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| -3 | 1 | 5 | 12 | 19 | 8 | 0 | -1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2.5 | 3.75 | 7.5 | 8.75 | 15 | 15 | 2.5 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 4 | 8 | 9 | 15 | 15 | 3 | 0 |

This method works by computing the difference between a pixel’s left and right or up and down neighbors and then combining each. An LUT is used to essentially score how much a pixel is different from its neighbors and this value is finally combined with the original pixel values to create the image shown below.

A close-up of a rose

Description automatically generatedA close-up of a planet

Description automatically generatedA close-up of peppers and garlic

Description automatically generatedA screenshot of a television screen

Description automatically generated

I found gramp.jpg interesting because my algorithm doesn’t work when pixels have no or constant spatial frequency.