**Name: John Stephen Gutam**

**Email: jgutam@gmu.edu**

**Part-1: Linear Interpolation**

1. Insert your linear interpolated test image(hope.jpg) here:

Simple Linear Interpolation approach

A person looking at a bear

Description automatically generated

Output of get\_solution\_image() method for test image(hope.jpg):

A green screen with numbers

Description automatically generated

1. Display the map/plot of all the 3 training images here:

|  |  |
| --- | --- |
| A close up of crayons  Description automatically generated | A house on a snowy hill  Description automatically generated |
|  |  |

1. Post a close-up of any artifacts you came across.

|  |
| --- |
|  |
|  |
|  |

1. Average\_per\_pixel error and Max\_pixel\_error for each of 3 training images :

|  |  |  |
| --- | --- | --- |
| Image | Average\_per\_pixel\_error | Max\_pixel\_error |
| Crayons | 24640.01953125 | 125648.25 |
| Tony | 38280.16796875 | 118906.25 |
| Iceberg | 20763.48046875 | 123059.0 |

**Part-2 : Freeman Method**

1. Insert your Freeman Method test image (hope.jpg) here:

A person in a uniform

Description automatically generated with medium confidence

1. Display the map/plot of all the 3 training images here:

|  |  |
| --- | --- |
| A close up of crayons  Description automatically generated | A house on a snowy hill  Description automatically generated |
| A person in a suit with his arms out  Description automatically generated |  |

1. Post close-up of any artifacts you came across. very blurry corners and connections.

The image looks a bit blurry at the edges.

|  |
| --- |
|  |
| **Tony image:**  A comparison of images of a person's legs  Description automatically generated |
| A patch of a house with a patch of chimney  Description automatically generated |

1. Average\_per\_pixel error and Max\_pixel\_error for each of 3 training images :

|  |  |  |
| --- | --- | --- |
| Image | Average\_per\_pixel\_error | Max\_pixel\_error |
| Crayons | 26826.916015625 | 210424.25 |
| Tony | 38360.93359375 | 119319.25 |
| Iceberg | 19635.33203125 | 141157.25 |