2-Farthest_Point_Sampling_Visualization

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In [1]:
```
import pickle
from pyntcloud import PyntCloud
import numpy as np
import pandas as pd

def load_object(filename):
    with open(filename, "rb") as f:
        return pickle.load(f)
```

In [2]:
```
# Load and display pickled point cloud of teapot
point_cloud = np.array(load_object("teapot.cloud"))

# Setup point cloud visualization
points = pd.DataFrame(point_cloud, columns=["x", "y", "z"])
colors = np.full((point_cloud.shape[0], 3), (255, 255, 255), dtype=np.uint8)
points[["red", "blue", "green"]] = pd.DataFrame(colors, index=points.index)

# Show point cloud
cloud = PyntCloud(points)
cloud.plot(point_size=1.0, opacity=1.0, lines=[], line_color=[])
```

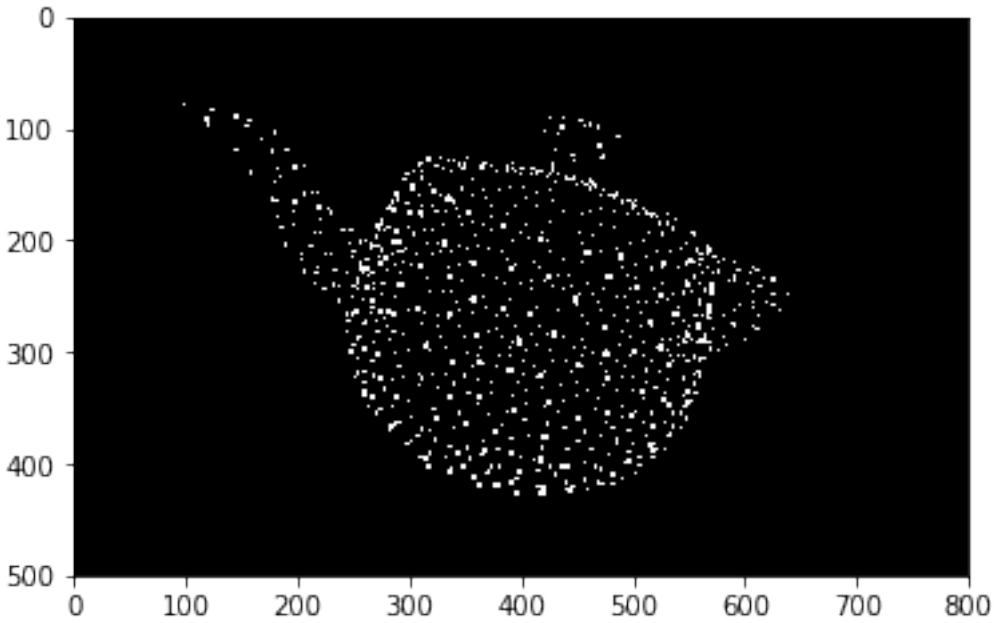
Out[2]:
```
<IPython.lib.display.IFrame at 0x7f3e20460588>
```

In [3]:
```
# Load and display pickled point cloud of violin case
point_cloud = np.array(load_object("violin_case.cloud"))

# Setup point cloud visualization
points = pd.DataFrame(point_cloud, columns=["x", "y", "z"])
colors = np.full((point_cloud.shape[0], 3), (255, 255, 255), dtype=np.uint8)
points[["red", "blue", "green"]] = pd.DataFrame(colors, index=points.index)

# Show point cloud
cloud = PyntCloud(points)
cloud.plot(point_size=0.01, opacity=1.0, lines=[], line_color=[])
```

Out[3]:
```
<IPython.lib.display.IFrame at 0x7f3e65334080>
```

In [4]:
```
import matplotlib.pyplot as plt
import matplotlib.image as mpimg
```

```
# Plot screenshot for pdf-file
plt.imshow(mpimg.imread("teapot.png"))
plt.show()
```



In [5]:
```
plt.imshow(mpimg.imread("violin_case.png"))
plt.show()
```