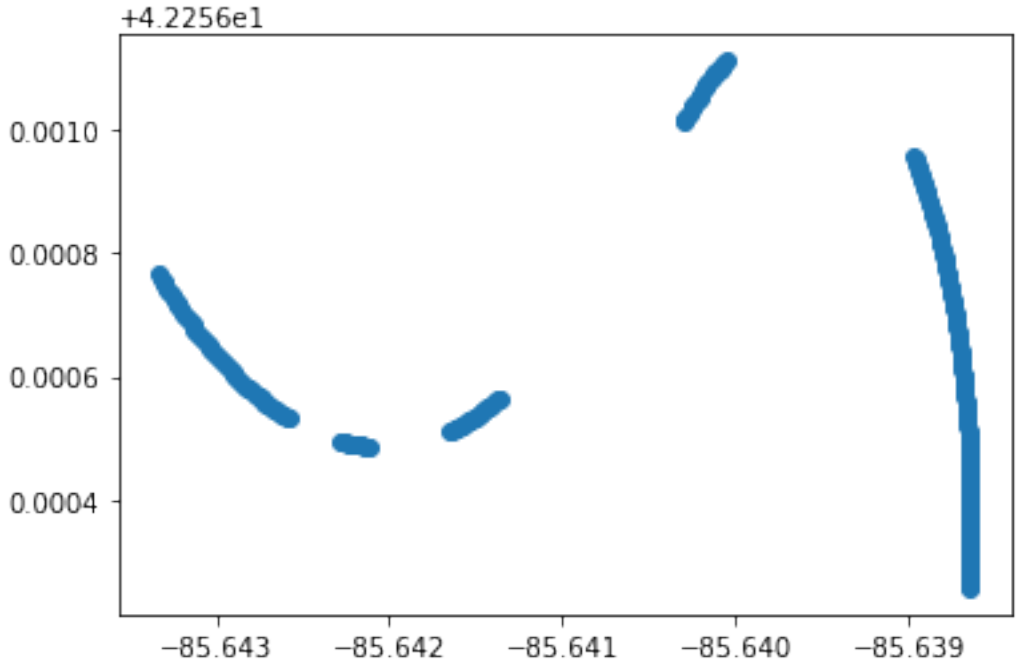
GPS_and_localization

February 28, 2023

Question no 4 a

[ ]:
```
import pandas as pd
import matplotlib.pyplot as plt
df = pd.read_csv("/content/gps_points.csv")
```

[ ]:
```
plt.scatter(df['longitude'],df['latitude'])
plt.show()
```



[ ]:
```
map = plt.imread("/content/map.png")
```

[ ]:
```
fig, ax = plt.subplots(figsize = (8,7))
ax.scatter(df.longitude, df.latitude, zorder=1, alpha= 0.2, c='b', s=10)
ax.set_title('Plotting hdmap.bag file data on WMU parkview map')
ax.set_xlabel("Longitude")
ax.set_ylabel("Latitude")
```

```
ax.set_xlim(-85.64588,-85.63619)
ax.set_ylim(42.25339,42.25952)
ax.imshow(map, zorder=0, extent = (-85.64588,-85.63619,42.25339,42.25952),␣
↪aspect= 'equal')
```

[ ]: <matplotlib.image.AxesImage at 0x7f0c09103ee0>