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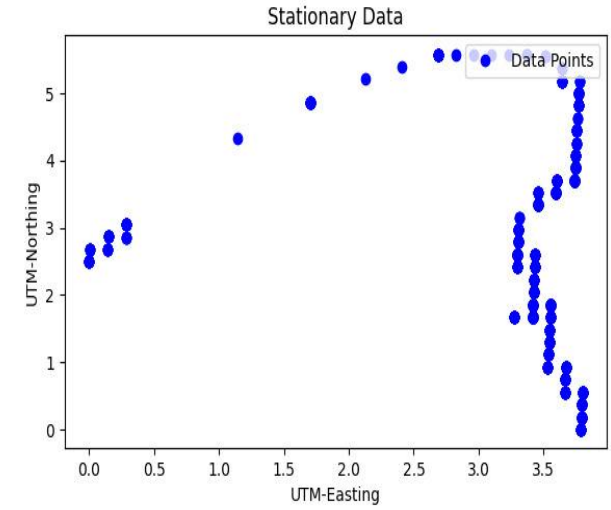
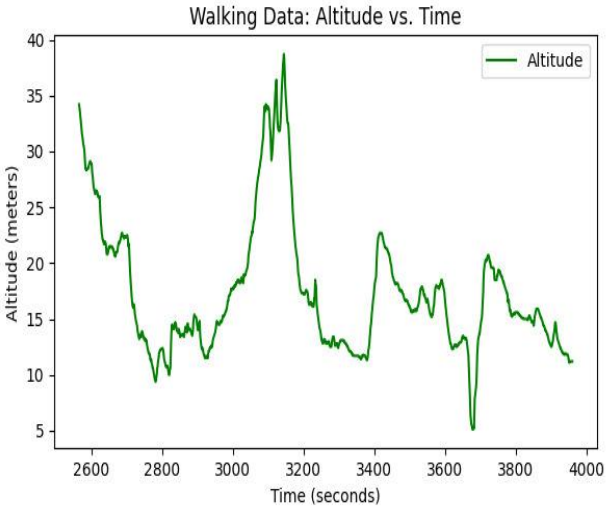
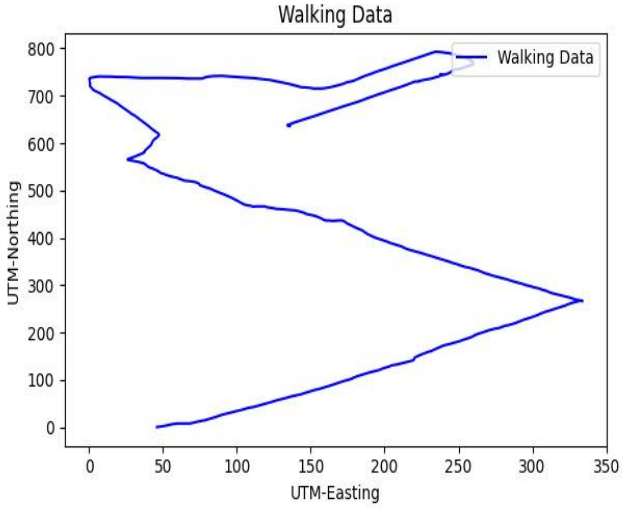
EECE5554
Lab 1 Report
Due Date: 09/29/22







STATIONARY DATA:

The dataset, named 'stationary_data.bag', provides insights gathered while the puck was kept immobile outdoors. This specific location chosen for data collection was the 'Carter Field' children's park—a place known for its openness and lack of obstructions. Weather-wise, the day was marked by an overcast sky, occasionally there was drizzles of light rain. These conditions, although not ideal, were deemed manageable for the purposes of the experiment.

The accompanying graph distinctly categorizes all data under zone, letter: 19T. We can notice the scattered data points on the chart. This irregularity might not be an error but a reflection of the GPS's initial setup phase before it started its main tracking function.

Furthermore, another graph representing altitude in relation to time brings forward an interesting observation. The GPS system, like many of its kind, requires a brief adjustment period to calibrate and offer consistent readings. However, even post this calibration phase, the system appeared to falter slightly, failing to display the accurate altitude of the Carterfield region.

WALKING DATA:

The walking data spanned a 20-minute walk across Boston. The journey initiated at Carter Field and concluded at the Reflection Pool. As represented in the graph, the data acquired appears to be notably accurate.The graph suggests that the acquired data is reasonably accurate, a claim that could be cross-referenced with satellite imagery. This data is also presented in zone, letter: 19T.

Yet, not all went as seamlessly as hoped. Another graph showcasing altitude brought forward some challenges. Due to a combination of movement and possible external interferences, the GPS exhibited some instability.

This instability led to noticeable altitude variations throughout the walking phase. Had the GPS maintained a level of stability, the altitude results would have been a more consistent and reliable picture.