

PTRAIL Temporal Functions				
Sr.No	Function Name	PyMove	MovingPandas	Note
1	create_date_column()	generate_date_features()	--	
2	create_time_column()	generate_hour_features()	--	
3	create_day_of_week_column()	generate_day_of_the_week_features()	--	
4	create_weekend_indicator_column()	generate_weekend_features()	--	
5	create_time_of_day_column()	generate_time_of_day_features()	--	
6	get_traj_duration()	time_interval()	get_duration()	1. The time_interval() feature in PyMove just finds the interval of the whole dataset instead of finding it for individual trajectories.
7	get_start_time()	---	get_start_time()	
8	get_end_time()	---	get_end_time()	

PTRAIL Spatial Functions				
Sr.No	Function Name	PyMove	MovingPandas	Note
1	get_bounding_box()	get_bbox()	get_bbox()	
2	get_start_location()	--	get_start_location()	
3	get_end_location()	--	get_end_location()	
4	create_distance_between_consecutive_column()	generate_dist_features()	--	
5	create_distance_from_start_column()	--	--	
6	create_distance_travelled_by_date_and_traj_id()	--	--	
7	create_point_within_range_column()	--	--	
8	create_distance_from_given_point_column()	--	--	
9	create_speed_from_prev_column()	generate_speed_features()	add_speed()	
10	create_acceleration_from_prev_column()	--	--	
11	create_jerk_from_prev_column()	--	--	
12	create_bearing_column()	--	--	
13	create_bearing_rate_column()	--	azimuth()	
14	create_rate_of_bearing_rate_column()	--	--	
15	get_distance_travelled_by_traj_id()	--	get_length()	
16	get_number_of_locations()	--	--	

PTRAIL Filters				
Sr.No	Function Name	PyMove	MovingPandas	Note
1	remove_duplicates()	drop_duplicates(), clean_consecutive_duplicates()	--	
2	filter_by_traj_id()	by_id()	--	
3	get_bounding_box_by_radius()	get_bbox_by_radius()	--	
4	filter_by_bounding_box()	by_bbox()	--	
5	filter_by_date()	--	filter()	1. In MovingPandas, the filter() function is just a general filter which takes in a column and then a specific value and then filters out only the exact matches of the given specific value.
6	filter_by_datetime()	by_datetime()	--	
7	filter_by_max_speed()	--	--	
8	filter_by_min_speed()	--	--	
9	filter_by_min_consecutive_distance()	--	--	
10	filter_by_max_consecutive_distance()	--	--	
11	filter_by_max_distance_and_speed()	--	--	
12	filter_by_min_distance_and_speed()	--	--	
13	filter_outliers_by_consecutive_distance()	clean_gps_jumps_by_distance()	--	
14	filter_outliers_by_consecutive_speed()	clean_gps_nearby_points_by_speed()	--	
15	remove_trajectories_with_less_points()	clean_trajectories_with_few_points()	--	
16	hampel_outlier_detection()	--	--	

PTRAIL Interpolation				
Sr.No	Interpolation Type	PyMove	MovingPandas	Note
1	Linear Interpolation	Linear Interpolation is present.	Linear Interpolation is present.	
2	Cubic Interpolation	--	--	
3	Random-Walk Interpolation	--	--	
4	Kinematic Interpolation	--	--	