

Sparse GPS Trajectory for Map Matching

Project Description:

Map-matching is the process of aligning a sequence of observed object positions “GPS trajectory” with the existing road network on a digital map. This is an essential pre-processing step for many applications such as traffic flow analysis.

Most of the existing work assumes that the GPS trajectory data is dense, which is not the real case. So, our aim of the project is to use the sparse and noisy GPS trajectory and to exploit the associated contextual information to perform map matching.

Duties/Activities:

The Intern will work on an existing baseline code and gets supervision from mentors in tweaking the code to match the designated problem. The intern will then test the developed code on real trajectory datasets.

Required Skills:

Python, R, or MATLAB, programming skills are required. Understanding basic machine learning algorithms, or deep learning architectures is a plus.

Learning Opportunities:

The intern will have opportunity to work closely with a scientist on promising research problems, and participate in solving a real-world problem.

Expected Team Size: 2-3

Mentors

Name: Mohamed Elshrif

email: melshrif@hbku.edu.qa