



Company Name:	Movement Strategies
Team / Department:	Movement Analytics
Address:	Movement Strategies 31-35 Kirby Street London EC1N 8TE

Provisional title for project:

An assessment of the impact of weather upon global shipping patterns using GPS data and weather APIs.

Short description of the problem that would be addressed by the project:

Approximately 90% of global trade is carried by sea. Weather has a significant effect on the shipping and offshore industry. Vessels encountering heavy weather will experience speed reduction due to increased resistance from wind and waves, as well as weather having an adverse impact on the safety of the crew and damaging ships themselves. Using GPS shipping data this project will aim to understand the relationship between adverse weather conditions and shipping behaviours (e.g. routing, delays, docking). The student will use this insight to predict when (and the severity with which) shipping is likely to be impacted.

Short description of the data sources that would be used in the project, and how they would be used.

Movement Strategies collect GPS data from AISs (Automatic Information Systems) fitted on the ocean's largest shipping vessels. These data will be supplemented using the OpenWeather API and any other supplementary data sources where appropriate.

Would any work by the student need to be carried out on site at the Company with the exception of supervisory meetings?

No

Any issues of data confidentiality and IPR that would need to be resolved

Yes

Essential skills

Python or R are essential.

Desirable skills

Experience using SQL and GIS tools is desirable.

Preferred degree programmes (if any)

A programme with a primary statistical/data science focus.

Preferred selection method

Face-to-face or Skype interview.

Support and training offered by the company

A full range of support and training is available from Movement Strategies, including a 1 hour meeting every 2 weeks and a full-time desk provided at our London offices, with immediate access to a dedicated supervisor and other staff.

Financial assistance offered by the company

Travel or other expenses will be incurred and will be reimbursed as appropriate

Any other comments

Movement Strategies has a strong track record of offering project placements to students over the past 5 years. Successful students will be supported with individual mentors who are subject matter experts, most of whom have previously taken part in the Consumer Data Research Centre (CDRC) Research Masters Dissertation Scheme themselves and have a good understanding of the process and guidance required.