<table>
<thead>
<tr>
<th><strong>Company Name:</strong></th>
<th>Movement Strategies</th>
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</thead>
<tbody>
<tr>
<td><strong>Team / Department:</strong></td>
<td>Movement Analytics</td>
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<tr>
<td><strong>Address:</strong></td>
<td>Movement Strategies 31-35 Kirby Street London EC1N 8TE</td>
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</tbody>
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**Provisional title for project:**
An assessment of smart CCTV camera calibration to capture customer itineraries in a retail environment.

**Short description of the problem that would be addressed by the project:**
Smart cameras are increasingly being used in retail environments to add valuable insights to business owners about consumer itineraries and behaviours. Using new/existing software libraries (e.g. OpenCV) the aim of this project is to identify the impact of a variety of factors (e.g. light, position, density of consumers) upon the accuracy of smart cameras to count volumes and track an anonymous individual in a busy high street café.

**Short description of the data sources that would be used in the project, and how they would be used.**
Video streams and snapshot images from the camera will be provided using RestAPI. Camera footage may also be made available for calibration and training purposes, 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 primarily statistical/data science focus.

**Preferred selection method**
Either face-to-face interview or Skype.

**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.

For details on how to apply, please visit: [https://www.cdrc.ac.uk/mds/details-for-students/](https://www.cdrc.ac.uk/mds/details-for-students/)