Masters Dissertation Scheme
Project form

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

Provisional title for project:

Detecting Pedestrian Movements Using Computer Vision

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

Studying video feeds captured on CCTV or other cameras throughout our clients' locations has become an important source of data in many diverse projects. With the rise of concerns around data privacy and the spread of use cases and projects, it has become crucial to automate video analysis, to extract data from it in a faster, more secure and less resource-intensive way

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

Historic video footage will be made available to develop and train models and algorithms. A live feed from a camera located in one of our locations can also be supplied. This will help extend the work to address real-time solutions

Would any work need to be carried out on site at the company, with the exception of supervisory meetings?

Mentoring will be tailored to suit the individual student's preferences. Attendance at the office can range from a full-time desk during the summer in our office to bi-weekly catch-ups with mentors (subject to current government guidance)

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

Where relevant, all personal data will be anonymised and aggregated to a level which prevents identification of individuals. Data will be stored in a secure cloud-based platform. Movement Strategies have previous experience of supporting Masters Students through the CDRC process and understand the relevant ethical procedures that students may face. Movement Strategies actively encourages the publication of Masters research subject to the relevant data sharing and privacy policies

Essential skills

Python or R are essential

Desirable skills

Experience of using SQL and GIS tools

Preferred degree programmes (if any)

A programme with a primarily statistical/data science focus

Preferred selection method

Either 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, starting from a 1 hour meeting every 2 weeks, through to a full-time desk being provided at our London offices, with immediate access to a dedicated supervisor and other staff. This meeting will either be conducted in person or online, depending on the health restrictions in place

Financial assistance offered by the company

The organisation will pay the honorarium of £500; travel or other expenses incurred 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 with several of our students winning prizes in the CDRC competition. Successful students will be supported with individual mentors who are subject matter experts, most of which who have previously taken part in the CDRC themselves and have a good understanding of the process and guidance required

For details on how to apply, please visit:

www.cdrc.ac.uk/education-and-training/masters-dissertation-scheme