

Company Name:	Liverpool City Region Combined Authority
Team / Department:	Research, Intelligence and Evidence
Address:	Liverpool

Provisional title for project:

Geographic Data Science (4 projects)

Short abstract of what the project would probably entail, and the data to be used:

Liverpool City Region Combined Authority are pleased to offer the following 4 projects on geographic population data:

1) *What is the potential for a Liverpool City Region bike share scheme?*

This project would examine the potential extension of a bike sharing scheme from the Liverpool City Council area to other parts of the wider city region; examining the geography of active travel relative to existing provision; alongside suggested locations where such extension might generate positive benefits to health and the environment.

Data Used: 2011 Census; Citybike Cycle Data

2) *What can Geodemographics tell us about Liverpool City Region's Aging Population?*

This project would explore the development of a geodemographic indicator for the Liverpool City Region that is tailored specifically to an aging population. This would provide better insight into the variable characteristics of this demographic and their contexts.

Data Used: 2011 Census; ONS Population Estimates

3) *How healthy is Liverpool City Region?*

This project will identify the develop a novel indicator measuring how healthy environments are within the Liverpool City Region, and examine how it relates to multiple health outcomes. This will help to identify areas to target with interventions to improve environmental quality to improve health.

Data Used: 2016 and 2017 Access to Healthy Assets and Hazards data; 2011 Census

4) *How equitable is broadband connectivity within Liverpool City Region?*

This project would provide an audit of broadband connectivity and Internet use within the city region to establish and map those areas where provision might be lacking and investment needed. Demographic characteristics will be considered to explore appropriate mitigation required in enabling smart governance.

Data Used: Ofcom broadband estimates; Internet User Classification; Index of Multiple Deprivation; ONS Population Estimates.

Please be sure to specify which of the four projects you are applying for in your cover letter.

Essential and desirable skills that the student would need to have:

Essential skills (NB):

GIS / Quantitative Analysis / Data Manipulation.

Desirable:

Skills in R or Python

Preferred degree programmes (if any):

Any social sciences (Geography, Sociology, Public Health etc) or computer science / other discipline with a component of quantitative data analysis.

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?

(e.g. Would there be any restrictions on the Master's dissertation or academic publication arising out of the work?)

No – all the analysis would be using public domain / open data.

Preferred selection method

TBC

Support and training offered by the company

Financial assistance offered by the company

I agree to pay the student £500

For details on how to apply, please visit:
<https://www.cdrc.ac.uk/retail-masters/details-for-students/>