PlaceME@SMI 2021: Liberty Group - Insights, forecasting and efficiencies.

Project Leader / Supervisor	Ashley Wylde
Department / Organisation	Liberty Group www.liberty-group.co.uk
Project title	Insights, forecasting and efficiencies.
Project reference	PMS-07-2021
Location of placement	Remote/Manchester/Knowsley
Summary of research project	

Liberty delivers people-focused, intelligence-driven property services that deliver better outcomes for customers and clients. We repair and maintain buildings, manage properties, build homes and support clients with all their property needs.

The student will join the BI team at Liberty to assist in providing access to data, reporting, visualisation, and insights to a broad range of stakeholders across the company.
The focus is bringing efficiencies to the business, in turn passing this on to clients around the country providing social housing.

This is delivered via Microsoft Power BI, the leading data visualisation platform used by both the private and public sector.

This will involve gathering requirements, distilling into project specifications leading to successful management of the project through to completion. Collaboration with the team will be key, however the student will be expected to take ownership of the project with the ability to use own initiative to progress tasks.

A number of projects are currently in scope for the placement, and we would like to involve the student in the decision-making process of which projects(s) they shall lead.

Examples of these are:
- Forecasting parts failures, creating a financial model to estimate if fully replacing boilers would be overall more beneficial than multiple repairs.
- Using GPS data from fleet vehicles and engineer PDA's alongside mapping/traffic API's to inform appointment scheduling process.

Links to external organisation(s), including international partners (if relevant)

The core workforce management systems will form the base datasets used, however other publicly available datasets such as weather data and demographic data should be explored alongside mapping API's etc.

Tasks to be performed during the placement

- Data discovery
- Gaining an understanding of business processes and the industry
- Querying databases and creating views as required
- Manipulating and formatting data
- Creating models and relationships with existing and new schema elements
- Analysing data, exploring insights
- Adding value via statistical methods
- Proposing approaches to implement/investigate.

Project's outputs

Deliverables will consist of Power BI dashboard and reports, building and enhancing data models, incorporating advanced techniques such as machine learning and statistical analysis.

We expect that supporting documentation from a technical level will be produced, alongside an overview report/presentation for non-technical business stakeholders to understand the benefits and use cases.

Person specification

- Inquisitive nature
- High level of attention to detail
- Stakeholder management skills
- Can explain insights and analysis techniques to less technical users
- Understanding of relational databases
- Data visualisation experience
- Experience of SQL, PowerBI and Excel
- Desirable skills – R/Python, consuming data via API
- Knowledge of Azure and its services for implementation

Terms and conditions

The placement will primarily be working remotely in line with BI team currently, supplemented with in person meetings as required with the BI team and/or stakeholders at Liberty offices in Eccles or Knowsley (assistance with transport/ remote attendance can be provided).
The placement will be for 35 hours a week over a period of 6 weeks between the middle of June and end of September. The successful candidate will be awarded a £2012 bursary by SMI.

Students who will be awarded the placement are expected to write two blog posts (x 300 words) for SMI about their experiences.

How to apply?

Candidates should send a CV and a motivation letter in PDF formats by 19 April 2021 to Abigail Tazzyman a.tazzyman@sheffield.ac.uk in an email entitled 'PlaceME@SMI – Liberty.

Shortlisted candidates will be interviewed by Ashley Wylde / Tom Gerlach by the end of May 2021.

Contact details	Ashley Wylde ashley.wylde@liberty-group.co.uk