**MSc DATA SCIENCE**

**ST498 – Capstone Project proposal**

**Project title: Data-driven approaches for legacy analysis and prospection**

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**Project description**

LSE’s Philanthropy and Global Engagement division (PAGE) has a growing legacy marketing programme, which takes prospective donors from initial enquiry about leaving a legacy to the School, to a firm pledge to leave a legacy.

As legacy giving to the School grows in both financial terms, and as a strategic priority, PAGE needs actionable insight:

* into its current legacy prospects, and
* how to identify the best legacy prospects so that legacy marketing spend realises the best return on investment.

**Research questions**

* What are the key characteristics of prospects
  + In the legacy pipeline as a whole?
  + At each stage of the legacy pipeline?
* How do legacy prospects differ from the rest of the alumni population?
* How can PAGE take a data-driven approach to identifying the best legacy prospects?

**Project objectives and milestones:**

Milestone 1 Objectives

* Descriptive statistics of the legacy pipeline as a whole
* Descriptive statistics for each stage of the legacy pipeline

Milestone 2 Objectives

* Index of key variables against the general alumni population
* Statistical modelling. This could include:
  + Predictive models such as logistic regression or CHAID
  + Factor analysis
  + Cluster analysis

Your choice of techniques should be informed by the requirements of Milestones 3 & 4.

Milestone 3 Objectives

* A report setting out key findings and recommendations geared to a non-technical, non-specialist audience
* A twenty-minute presentation to PAGE stakeholders, setting out key findings and recommendations

Milestone 4 Objectives

* Handover. This will likely be iterative with at least one 30-minute meeting and follow-up communications.
  + Handover of code to PAGE technical stakeholders
  + Recommendations for data enhancement

PAGE will provide anonymised real data, subject to the provision of a signed confidentiality agreement.

We have no preferred model or approach. The focus is on providing actionable insight, which should drive project methodologies and deliverables.

**References**

Provide a list of indicative readings/sites etc

<https://www.lse.ac.uk/supporting-lse/legacy-giving> Public-facing LSE legacy giving website

<https://www.legacyfutures.com/resources/data-dashboard/> Provides context for the current state of the UK legacy giving market. The website also contains other useful resources.

\* Students can work with toy datasets (publicly available) or create some synthetic dataset to mimic the partner’s real/target dataset. It is also possible to agree on some technology transfer, so students can develop/test models using toy/synthetic data and then transfer the code to the partner for testing with real datasets and production sandboxes. NDA and other collaboration agreement documents can be signed if necessary.

Useful websites

[LSE Department of Statistics](https://www.lse.ac.uk/statistics)

[MSc Data Science programme](https://www.lse.ac.uk/study-at-lse/Graduate/degree-programmes-2021/MSc-Data-Science)

[Capstone project course guide](https://www.lse.ac.uk/resources/calendar/courseGuides/ST/2021_ST498.htm)

[LSE intellectual property policy](https://info.lse.ac.uk/staff/services/Policies-and-procedures/Assets/Documents/IntProPol.pdf)