

Please provide the below content related to the project proposal and outline.

1 Project Proposal

Please provide the following information regarding the project proposal:

- A formal description of the project with a stated research goal.
- A specific question or set of questions that the project seeks to address.
- A proposed methodology/approach to the analysis that will be performed.
- A metric or set of metrics which will measure analysis results.

2 Project Outline

Please provide the following information regarding the project outline:

- Literature review and related work - existing projects, references, papers, and relevant articles, etc.
- All data sources and reference data with descriptions - dataset type (documents, trial data, etc.), dataset size (number of observations, number of dimensions), feature descriptions, other notes (missing data, processing issues, etc.), etc.
- Data processing and pipeline - cleaning, imputing, transformation, outlier detection, etc.
- Data stylized facts - distributional analysis, clustering, dimensionality reduction, etc.
- Model selection - feature selection requirements, classification/regression approaches, reference/baseline model, etc.
- Software packages, applications, libraries, and associated tools, etc.