11-777 Report 1: Dataset Proposal and Analysis

First Last 1[*]   **First Last 2**[*]   **First Last 3**[*]   **First Last 4**[*]

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1 Problem Definition and Dataset Choice (1 page)

If you are choosing a dataset not listed on the course website, this section should be long enough to justify that you are qualified for your choice. This may mean a second page.

1.1 What phenomena or task does this dataset help address?

1.2 What about this task is fundamentally multimodal?

1.3 Hypothesis

We believe there are three places cross-modal information can be used or imporoved

1. ...

2. ...

3. ...

1.4 Expertise

We have the following expertise in the underlying modalities required by this task:

1. Team member 1: Research paper in CV, ...

2. Team member 2: Took NLP in Fall 2021, ...

3. ...

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[*]Everyone Contributed Equally – Alphabetical order

2 Dataset Analysis (1 page)

2.1 Dataset properties

(GBs, framerate, physical hardware platform, ...)

2.2 Compute Requirements

1. Files (can fit in RAM?)

2. Models (can fit on GCP/AWS GPUs?)

2.3 Modality analysis

(use a small sample – e.g. validation splits):

1. Lexical diversity, sentence length, ...

2. Average number of objects detected per image

3. Degrees of freedom, number of articulated objects, ...

2.4 Metrics used

2.5 Baselines

Four papers that have worked on this dataset

3   Team member contributions

Member 1   contributed ...

Member 2   contributed ...

...   contributed ...