Detailed Budget:

In order to use the Amazon Mechanical Turk, I will need to pay workers a fee for each “intelligence task” I assign. In my case, the intelligence task requires reading a paragraph and determining, in context, how “optimistic” the paragraph will be, on a scale of 1-5, in which 1 is highly pessimistic, 2 is guardedly pessimistic, 3 is completely neutral or devoid of sentiment, 4 is guardedly optimistic, and 5 is highly optimistic. Since optimism is best understood in context, workers will be asked to read paragraphs or large chunks of text and evaluate them. This is important, because I want to train my system to understand which presidents are the most optimistic in their speech, and in order to train the system, and determine its accuracy, I will need the data to be verified by a team of independent humans.

I estimate the total cost of this service to be about $480.

The average human can read about 200 words per minute, or about 12,000 words per hour. However, I will need a significant margin of error, because much of the text I will need evaluated is written in very archaic language. Furthermore, readers will constantly need to be evaluating optimism. Given this, I estimate that an average human can complete about 6,000 words per hour. Assuming we pay each person $10 / hour (recall that minimum wage is $7.25 / hour), this will cost about $160 for each set of 100,000 words. I believe that 100,000 words (equivalent to a 200 page essay) for each president will be a sufficient amount of data to train my system, and evaluate the set of letters I have for each president. This allows for about 50,000 words for training and evaluation each, which I believe is necessary. I believe that 3 presidents should be evaluated at minimum, bringing the total to $160 \* 3 = $480.

A summary is shown below:

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| --- | --- | --- |
|  | Words: | Dollars: |
| Per Minute: | 100 | $0.17 |
| Per Hour: | 6,000 | $10 |
| Per President: | 100,000 | $160 |
| **Total:** | **300,000** | **$480** |