

## Review of 3c

October 2, 2019

### Five Review Elements:

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to:
  - (a) advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - (b) benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or institution to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?

### Rating:

Make a subjective call from the following list:

- Poor
- Fair X
- Good
- Very Good
- Excellent

## **Summary**

### **Intellectual Merit**

In the context of the five review points given above, please provide a paragraph summary of the intellectual merit of the proposal, as you see it.

The author proposes a heuristically pruning of the dynamic programming matrix for the Forward-Backward algorithm which would improve speed without losing much sensitivity. They fail to provide measures of speed and accuracy comparison between Forward-Backward and Viterbi so it is impossible to assess the scale of the problem or whether the proposed solution is reasonable.

### **Broader Impacts**

In the context of the five review points given above, please provide a paragraph summary of the broader impacts of the proposal, as you see it.

The author does not successfully make a case for the broader impacts of their proposal. They suggest two software packages it could be implemented but does not make the case that those packages need this improvement or that such an improvement would provide broader benefits.

## **Summary Statement**

Please provide a one or two sentence statement of the key strengths and issues of this proposal.

The heuristic pruning seems potentially useful but the author does not provide enough information to make a determination on its merits.