Your ANLP assignment 1

Sharon Goldwater <sgwater@inf.ed.ac.uk>

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To:AQUILINA Matthew <M.Aquilina@sms.ed.ac.uk>;

Comments and a mark for your assignment follow below.

The total is a raw mark. If any late penalty applies, the mark will be adjusted accordingly before it is entered into Euclid.

Please note that all marks are provisional until reviewed by the Board of Examiners (though changes normally only occur in exceptional circumstances).

In the comments, "see general feedback" refers to the pdf notes I sent out last week (and will again in a moment).

--AuH2O

Marks and feedback for s1818699:

1. 9
Good that you add begin/end marks, but say why.

2. 10
You correctly ruled out MLE.
Good justification for add-one/add-alpha smoothing. Nice use of specific examples/evidence.
Good consideration of a variety of smoothing methods. Clear reasoning for excluding certain methods.
Presentation is generally clear.
Your answer could be more concise: try saying the same things in fewer words!
Overall: excellent job!

3. 27
Justification for smoothing: almost there, but *why* do you need to avoid zero probs?
You're right that add-one/add-alpha are a reasonable starting point, but did you consider other alpha values?
Your description is generally clear but could be more concise.
Correct equation(s) and you have defined all terms in the current context.
Excerpt for 'ng' looks right and good discussion.
Overall: Generally good, though parts could be stronger.

4. 14
Correct and very clear description/pseudocode; sequences look right.
Good discussion.

5. 14
Right perplexity values, right explanation, good discussion.
(But you didn't need to include all of the definitions/details of perplexity at the beginning.)

6. 5
Different alphas: Simple but sensible thing to try, clear presentation of results, and good discussion.
Interpolation: your graph here is rather difficult to interpret, perhaps it would have made more sense to show two plots to indicate how (say) lambda1 affects results given your best value of lamba2, and vice versa. Is it possible that the poor results with interpolation are because it's really intended as a method for smoothing word-level n-grams?
Classification: the idea of trying to use LMs to classify documents is a good one, and in fact people do use char LMs as part of authorship identification. A reasonable start at exploring this, but your description of what you did here could be a bit clearer.
Overall: you might do better to focus on one thing and do a really solid job of it rather than scattering attention on several different things...

Total: 79

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