Final Project - Paper Evaluation, CS68 Spring 2017

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Total: 82/100

Overall: Well constructed pipeline. It is a hard task - many biomedical imaging tasks are as it is difficult to learn or engineer descriptive features from 2D images. You thought clearly about experiments + methodology - but also be sure to spend more time on communicating these ideas to someone outside your project

1. (5 /5) Abstract: Does the abstract summarize the central question, methods, and conclusions of your work?

- Avoid undefined ~~acronyms~~ acronyms
- Good summary of paper

2. (15 /20) Introduction: Does the paper introduce the key issues, discuss related work and use proper citation?

- Good motivation for studying problem
- What motivates the use of CNNs? Their is little
- explanation for the algorithmic approaches, and
- ~~Esp~~ a lack of related work on related bioimaging tasks that use CNNs

Give an idea of what your methods entail - Stating the name "Bag of words" does not give an indication of how it will work

3. (28/30) Methodology: Is your algorithmic approach clearly described? Are the experiments clearly described (key parameter settings, data set, evaluation metrics) so that they can be replicated? Are figures used where appropriate?

- Good intuition / breadth of presentation for CNNs
- More depth needed - use figures / equations to precisely
- illustrate the differences ~~btw~~ between CNN and MLP
- BOWS is incomplete - the "features" are not defined

MPS needs to also be carefully defined - probably before CNN

Cite figures that you did not create

4. (20/30) Results and Discussion: Are the results clearly presented and analyzed? Are graphs and tables used where appropriate?

- A lot of unnecessary details that could be more concisely described - use this space to add depth to methods section. E.g. last paragraph of Sect 3
- Fig 7 and Tables are very useful!
- Very thorough experimentation of CNN models - it's unfortunate none of them could get over the barrier
- Good work on analyzing results. Place less emphasis on runtime - these are all "quick". Also, training accuracy is useful but not as important as other measures
- Fig 9 + 10 look nice, but what are they telling me about BOW?

5. (10/10) Is there a substantive conclusion? Are future directions for this work described?

- Very good discussion of improvements that could be made
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6. (2/5) Is there a bibliography provided with complete citations to relevant papers?

- Several errors / missing information - see PDF comments
- No references for CNNs?

Other comments: