CS497 Reading Quiz 2

1. **Please answer the following questions.**

**Please note: One or two sentence answers will not be graded. Each answer must be detailed, well written and well formatted. Code examples, images and diagrams are not required but appreciated.**

1. Please described (in detail and with an example) how to use 1D Covnets for spelling correction.

1D Covnets can be used in texts to recognize patterns in a sentence and to, later, recognize in other positions on other sentences. A 1D Covnet could be, therefore, be used to identify patterns in texts that are grammatically well-written and, then, these “filters” could be applied into normal text-editor applications to identify spelling errors. For example, this covnet could be trained to identify the syntax error “rather then” and suggest the user to change it to rather than, because it would’ve learned the difference between both homophones in news, and noticed that “than” is used when the writer wishes to postpone an idea of comparison and that “then” is used to logically define the succession of a premise.

1. RNN and 1D Covnets are two techniques can be used for sequence date. Please describe two use cases and in each use case one of the above techniques is preferable than the other.

One use case would be a translation application – where the order of the user input sentence is important –, RNNs are a better approach to this case because they process their input in order, and that has an impact when it comes to translation, once the user needs the output to follow his thought’s logical succession of facts.

Another example would be an application to identify similarity of content between students’ submitted homework; in this case a 1D Covnet would be a better approach because it can identify patterns in a text and find the same word structure on another position on another file, providing, thus, a way to automatically validate the originality of the content; the 1D Covnet performs better in this scenario because it’s not bounded to succession of patterns, instead, it’s able to find them even if the original content is fragmented or sparsely dissolved in the text.

1. **Grade:**

Total: 5

1. **Submission**
2. Write your answers into this document.
3. Name this document to <LastName>\_ReadingQuiz2.docx and upload to RQ1 on the class website.
4. Other file formats, other submission methods will not be accepted.