BIO300/CMPSC300

State-of-the-Art Tools Presentations

Fall 2017

Presentation Due: Tuesday December 5th

As we we have seen in Bioinformatics, there are many different types of tools which serve diverse purposes. For instance, some tools are designed for particular applications of alignment, protein modeling and other such similar niches of research.

In this activity, you and your group members are given the opportunity to explore some of these niche-based tools and to present to your class members one tool in terms of its usage and importance to your own research. *This tool must be something that has not already been discussed in class.* Your presentation should be about five minutes in length and consist of less then ten slides. This presentation will be held on the next class meeting, following the exam.

You are encouraged to visit the *ExPASy Bioinformatics Resource Portal (*at https://www.expasy.org/resources) to begin your tool research for your presententation.

Questions to consider:

1. What is the real-word biological question or problem this tool was designed to address? Provide a brief background.

2. Give a brief overview of the Bioinformatics tool including

    a. Potential users
    b. Input file format
    c. User interface
    d. Computational components
    e. Output/data generated
    f. Ease of use and interpretation

3. Has this tool been used in any recent primary research publications? If so, explain briefly. If not, provide specific examples of questions that may be answered/problems that may be solved using this new tool.

As you present your tool, please keep in mind that your presentation must address each of the above questions. You are also to include other interesting and relevant information and details which may help researchers choose the selected tool for its built-in features. This is not a software-tool demonstration: you are to describe its data, algorithms, utility and output to an audience who may not necessarily be familiar with your research area. Be sure to include relevant screen shots in your presentation to enhance your presentation and discussion. Please use class time today to develop your research, expertise and presentation for Tuesday's class.