BIO 394: Interdisciplinary Research Methods in Computational Biology

Some guidelines for the final report

Please submit your report latest by **Sunday, June 19th, 2022**.

The report should be approximately 10 page long, including all the figures and tables, but not the bibliography and the source code.

Introduction

Write a short introduction – approximatively 300 words – to describe the context of your project. It is recommended to include a description of the biological system you were modelling, the kind of tool(s) you were developing, the purpose behind these tools, and/or information on the type of data were you analysing. This introduction should be self-explanatory and should give the necessary elements required for an external reader to understand what was the rationale behind the project.

Methods

Describe your model, including details of the mathematical concepts used in establishing your model or analysing your data. Describe the program you wrote to simulate your model or analyse your data. Explain the steps necessary to simulate your model or analyse your data. You can organise your explanations using a flowchart, for instance. Name the type of algorithms used in your program and explain why these algorithms are suited to simulate or analyse the type of question you wanted to answer. Explain what type of data you need to use as input in your model, what (pre-)processing was performed on the data, and what are the outputs of the model.

Results

Try to summarise the results you achieved so far. This can be done by plotting the variables describing the dynamics of the system or showing the outputs, if your project is a tool. If you used an optimisation algorithm, include the final values you have obtained and how to interpret them.

Discussion, conclusion and outlook

Discuss what have you learned so far with your model or what have you learned by analysing your data. What can you conclude if you compare your results from your project with the current results and developments in the field? What would you suggest to do if you have a chance to continue on this project?

Self-assessment

Write a short paragraph evaluating how well you think you accomplished the goals of your own project. Describe specific aspects of your project which you believe you successfully fulfilled and those where improvements can be made.

Appendix

Please attached the listing of your **code** to document your project.