COMP 401: Project in Biology and Computer Science

Name: Furaha Damien McGill ID: 260754407

Supervisor: Prof. Jérôme Waldispühl

Project Proposal

I am planning to work on a project from Prof. Jérôme Waldispühl's lab. The project involves working on human-computing game for solving the multiple sequence alignment problem. Specifically, I intend to work on the following parts of the project as suggested by my supervisor:

- 1. **Custom database upload feature:** Upload / download (genes, annotations, models). This is a feature that was started by another student over the summer. It wasn't completely finished but it was close, so my supervisor suggested I work on it as a get go since it only has a little bit of work remaining.
- 2. **Bookmarking system**: A system that bookmarks the user's current point of view (mode, annotation, genes enabled) when on the game.
- 3. **History system:** A feature that will keep track of user's position, such that their previous movements can be forwarded or reversed.
- 4. **Download "cloud" databases**: Create a folder on the server which has all of the databases for models, genes, annotations. The user can have the option to download then to their system after launch if it doesn't exist. This is something similar to what is used in courses apps and other apps that download files usually.

These are the four major areas that my supervisor and I proposed I should work on for the project, pending the course coordinator's approval. While working on the project, my primary goal is to look into and understand these databases that I will be working with.