

Homework #2

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My task was to implement a pen-and-paper model of sexual selection from the 70's in Python, and then ask about whether the results of the model differ when applied to quantitative, rather than Mendelian, traits. So far, I've been able to implement the model. My next step will be to modify the model to consider quantitative traits.

1. Project Structure and Documentation

The project is divided into several subdirectories, which you can find on github. I've added README files to each subdirectory.

2. Data problem/understanding

This is an algorithm-focused project. I've provided a mathematical description of the model in the HW2 section of the ipynb file, and validated some of the original predictions of the authors.

3. Unit testing framework

I've provided unit tests for the assignment of fitness values and mating probabilities.

4. Initial implementation

The model has been implemented in the .ipynb file in the notebooks directory.

5. Progress report

Compared to the Gantt chart, **I'm currently behind**. I had hoped to implement the initial model much earlier in the semester. My **updated timeline** is to have the more fully fleshed-out model, with quantitative traits, by the end of April. I am currently unaware of any major scope changes, though I'll be meeting with our TA to discuss the project tomorrow.