

4.1 Plan Introduction

This Software Development Plan provides the details of the planned development for the Gene Pages feature for the GRNsight project. The gene pages will add additional functionality to GRNsight allowing for a user to select a protein and have the program automatically query multiple APIs for information about the correct protein from the species.

4.1.1 Project Deliverables

4.1.1.1 Species Menu 3/16

This is a menu that will display the species if the program is able to detect it from the user uploaded workbook. Otherwise the user can interact with the menu and manually select the species that they are working.

4.1.1.2 Tests for Species Identification 3/16

The tests will cover and prove the functionality of all of the pieces of the species menu

4.1.1.3 API Calls 3/30

Taking the species and protein data that is passed to the program through GRNsight this functionality will query the relevant APIs for the species. Giving each the required data for a response. It will then handle the data and output it for the user.

4.1.1.4 API Tests 4/13

Thorough testing to prove the functionality of the API calls in the gene page.

4.1.1.5 Data Display 4/20

Display the data in a neat and easily readable form for the user. This is not imperative to use, but it is a feature that adds to ease of use.

4.1.1.6 Finish Tests 4/27

Finish tests for data display, and add or update tests as the code evolves.

4.2 Project Resources

Since this is a one person project, there is not a lot of resources since I have broken up the tasks into a linear set of to-dos. Weekly meetings with the entire GRNsight team occur every Monday to help keep on tasks, and help with issues.

4.2.1 Hardware Resources

The hardware required to complete the project is a computer with access to the internet and a text editor of choice. Everything else can be run from the command line.

4.2.2 Software Resources

You will need an IDE and npm, otherwise the app is self contained.

4.3 Project Organization

The deliverables each represent a milestone of development. Given the nature of the GRNsight group, and our weekly meetings where we have a discussion on what was accomplished and what is left to be done, it makes it very easy to have a goal of a deliverable, or a piece of the current deliverable ready each Monday. Not only do we

need to have a piece of the project, but we are also expected to have written up the accomplishments of last week and the goals of this. This makes the meeting more smoothly and lets us focus on issues.

4.4 Project Schedule

Weekly meetings on Monday with a goal of a working piece of the final deliverable each meeting. This section will provide more information for the schedule of the Gene Pages for GRNsight.

4.4.1 PERT / GANTT Chart

See attached

4.4.2 Task / Resource Table

Each task requires only myself and my computer, which is all of the allocated resources, but also not that much in total.