

# CPR/SE 491 Weekly Report MAY 15-10 Week 7

**Advisors:** Ruchi Chaudhary

**Client:** Ruchi Chaudhary

**Members (roles):** Ben -- Team leader

Cole -- Team Key Concept Holder

Ian -- webmaster

Paul -- communication leader

**Project Title:** Gene Tree Improvement Tool / TreeFix

## Weekly Summary

This week, we started compiling all of the documentation and notes we've taken the past few weeks regarding the structure and design of Treefix, and our new MulRF distance algorithm. We met with our advisor to go over the challenges we're facing over accepting non-binary trees into Treefix, and discussed the design document. As a group, we got together and started working on our design document. We looked over the previous years design document, and took note of all the sections they had. We then split up the work between the group members to work on, and scheduled a time when we could all get together to review our work with our advisor.

## Meeting notes:

### 10/17 Group Meeting with Advisors

**Duration:** 15 min      **Members Present:** All except Ian (sick)

#### **Purpose and Goals:**

To discuss the feasibility of allowing TreeFix to use non-binary trees and to get help with design document. We discussed the raxml algorithm, as it exclusively deals with the transformation of DNA sequences into trees. This algorithm is important for us to understand because we need to use it to generate non-binary trees.

### 10/20 Group Meeting

**Duration:** 60 min      **Members Present:** All

#### **Purpose and Goals:**

To discuss/plan the design document and arrange this weeks meetings.

The group met together, and reviewed the design documents from previous years. We then took note of the required sections in the rubric, and started working on putting together our notes and diagrams from previous meetings. After an hour of work, we decided to split up the remaining work, and to review it with our advisor next week. We then scheduled a meeting with our advisor to go over the finished document to get feedback.

## Pending issues

1. All group members were given specific sections of the design document to complete. We will then meet up together to polish it up before showing it to our advisor for feedback.

## Plans for next week

1. Finish the first draft of the design document.
2. Write test cases for non-binary trees.
3. Examine the output from the lca function to determine reusability.

## Individual Contributions(this week)

Ben Streit (3 hrs) Met with Ian documented our outline for the MulRF class and the methods that will have to be created in other classes.

Cole Poffenberger (1.75 hr) Examined code to identify reusable code. Had a group meeting to work on design doc.

Ian Ray(2 hrs) Met with Ben to work on design docs/read code, met with group to do weekly report and discuss meetings for the next week.

Paul Leichty( 2 hrs) Examined raxml code as well as researched online to determine whether we are able to implement non-binary tree inputs in Treefix. Met with group to work on design documents, as well as advisor for our weekly meeting.

### **Total contributions for the project**

Ben Streit (18.75 hrs)

Cole Poffenberger (14.5 hrs)

Ian Ray (20.5 hrs)

Paul Leichty (15 hrs)