## EE/CprE/SE 491 Weekly Report (11/25/19 - 12/08/19)

Group Number 001 Client: Brockman, Nathan - Reiman Gardens Advisor: Vaswani, Namrata

Project Manager: Jay Amin Project Planner: Mark O'Meara Project Organizer: James Lockard Communications Director: Adrianna Kallis Documentation Designer: Matthew Markrose Test Engineer: Manthan

# Small Pupae Big Data

8<sup>th</sup> December 2019

#### **Weekly Summary**

This week, we finished the design document and started working on the presentation. We had a meeting with our advisor to clarify grading expectations. We also had a meeting with our TA to finalize the design document formatting and other related things.

### **Past Week Accomplishments**

| Team Member   | Work Done  |  |
|---------------|--|--|
| Jay Amin      | <ul> <li>Meeting with Dr. Vasawni all together as a team, clarified expectations and requirements</li> <li>Established schedule going forward with advisor</li> <li>Met with James over break to work on skeleton code and overall connectivity</li> <li>Reviewed design document and got feedback from TA</li> <li>Added additional code and prepared team website for editing</li> </ul> |  |
| Mark O'Meara  | <ul> <li>Meeting with our advisor Professor Namrata Vaswani</li> <li>Reflection: Peer Team Evaluation</li> <li>Worked on Design Review Presentation         <ul> <li>Meeting with team Sunday 12/8 to work on presentation</li> </ul> </li> </ul>  |  |
| James Lockard | <ul> <li>Met with Jay and created a working initial project that connects to the Firestore         <ul> <li>Commented out sections for ease of understanding</li> </ul> </li> <li>Worked on version 3 of the design document         <ul> <li>Assisted in cleaning up formatting</li> </ul> </li> </ul>  |  |

|                 | <ul> <li>Worked on various sections</li> <li>Revamped timeline graph in section 4</li> </ul>   |  |  |
|-----------------|--|--|--|
| Adrianna Kallis | <ul> <li>Meeting with our advisor Professor Namrata Vaswani         <ul> <li>Discussed evaluation criteria</li> <li>Discussed the idea of changing the response variable from "will the pupa emerge or not" to "percentage of pupae that will emerge properly". This better matched the data given, and a discussion with the client will be had to verify the usefulness of this model.</li> </ul> </li> <li>Cleaned data given by client</li> <li>Performed preliminary analysis on the data</li> <li>Collaborated with team on final design document and final presentation slides</li> </ul> |  |  |
| Matthew Markose | <ul> <li>Worked on design document</li> <li>Learned more Node that would be useful towards project</li> <li>Learned ML concepts that might be applicable towards project</li> </ul>  |  |  |
| Manthan         | <ul> <li>Added on to the initial project with implementation of external authentication</li> <li>Researched various methods of testing in software development including functional and non-functional testing</li> <li>Finished writing up section 5 of the design document</li> <li>Formatted the document based on TA expectations</li> </ul>   |  |  |

## Pending Issues

| Team Member      | Issues Encountered   |  |
|------------------|--|--|
| Jay Amin         | <ul> <li>Further edit team website to make it more polished</li> <li>Work with adrianna to better understand backend as well as full-stack duties and deliverables over the next few weeks</li> </ul>                          |  |
| Mark O'Meara     |  |  |
| James Lockard    | • Firestore implementation was not as cut and dry as it should have been. Imports were not working and had to dive deeper into connection process to be able to add and remove data.   |  |
| Adrianna Kallis  | <ul> <li>Waiting on client response for questions regarding which data to use (2 data sets were given originally)</li> <li>Awaiting client decision on switching the classification problem to a prediction problem</li> </ul> |  |
| Matthew Markrose |  |  |
| Manthan          | <ul> <li>Need more feedback from the TA on the issue of design<br/>document formatting and presentation</li> </ul>   |  |

## Individual Contributions

| Team Member      | Previous<br>Cumulative Hours | Hours Week of<br>11/25- 12/1 | Hours Week of 12/2 - 12/8 | Hours<br>Cumulative |
|------------------|------------------------------|------------------------------|---------------------------|---------------------|
| Jay Amin         | 69                           | 2                            | 6                         | 77                  |
| Mark O'Meara     | 53                           | 0: fall-break week           | 7                         | 60                  |
| James Lockard    | 62                           | 9                            | 6                         | 77                  |
| Adrianna Kallis  | 59                           | 4                            | 7                         | 70                  |
| Matthew Markrose | 48                           | 5                            | 5                         | 58                  |
| Manthan          | 60                           | 11                           | 6                         | 77                  |

## Plans For The Upcoming Week

| Team Member      | Projected Work  |  |
|------------------|---|--|
| Jay Amin         | <ul> <li>Presentation and more coding work</li> <li>Peer Evaluation</li> <li>Final touches to team website and design document</li> <li>Meet with client</li> </ul> |  |
| Mark O'Meara     | <ul><li>Present Design Review Presentation</li><li>Finish Peer Team Evaluation Reflection</li></ul>   |  |
| James Lockard    | <ul> <li>Template out opening page</li> <li>Meet with client to discuss progress</li> <li>Prepare for next semester</li> </ul>                                      |  |
| Adrianna Kallis  | <ul> <li>Finish design document</li> <li>Complete final presentation</li> <li>Meet with client to discuss progress and show preliminary analysis</li> </ul>         |  |
| Matthew Markrose | <ul><li>Take a portion of project to complete</li><li>Work with Manthan to aid in tasks</li></ul>   |  |
| Manthan          | <ul> <li>Write up on section 6 references</li> <li>Work on writing the code for the project</li> <li>Meet with team to discuss about presentation</li> </ul>        |  |

### Summary of Weekly Advisor Meeting

In the meeting with Dr. Vaswani, the team discussed deliverables and addressed questions regarding analysis. First, the team discussed what documentation Dr. Vaswani would like before the end of the semester. Additionally, the team clarified the quantity and depth of updates that should be provided to Dr. Vaswani throughout next semester. Adrianna additionally discussed questions about the analysis. They discussed the idea of shifting the problem statement from a classification problem (will a pupa emerge or not) to a prediction problem (what is the expected percentage of pupae in a shipment that will emerge properly). Adrianna plans to discuss this change with the client, but both Adrianna and Dr. Vaswani agreed that the change may improve model capabilities. Additionally, they discussed how to handle missing data and unknown columns from some facilities.