

EE/CPR E/ SE Weekly Report II

Feb March 4 - March 8

Group Number: 08

Project Title: Artificial Intelligence for Requirement Analysis Tools

Client & Advisor: Collins Aerospace & Dr. Simanta Mitra

Team Members & Roles:

Ryan Cerveny: Scrum Master, Meeting Scribe/Facilitator, Project Lead, Communicator

Apurva Patel: Project Lead, Report Manager, Technical Support, Communicator, AI Training Lead

Jonathan Murphy: Testing Engineer, Researcher, Requirement Lead

Takao Shibamoto: Chief Engineer, Researcher, UI Lead

### **Weekly Summary:**

The focus of this week was developing word mover distance research on glove algorithm and developing a GUI/UI, analyze the data provided by rockwell collins at the research park, , and sprint meeting with Rockwell Collins Representative.

### **Past Week Accomplishments:**

#### Research on GloVE (Ryan & Apurva):

Ryan and Apurva researched on GloVE algorithm. However, the research needs to be more specific with specific example.

#### Implementation of Word Mover Distance (Ryan & Apurva):

Ryan and Apurva implemented the word mover distance algorithm, and is ready for testing

#### Visiting Research Park (Collins Aerospace)[All team members]:

All the team members visited the collins aerospace at Research Park, Ames. Met few more representatives of Collins Aerospace, discussed topics related to the senior design project. Moreover, we looked at the data that is been provided by the company. We also, started to look on the design procedure for the project.

#### Updating Jira Task(Ryan):

Ryan updated the Jira task for each team member focused for the next two week task.

#### Research on doc2vec (Takao):

He continuously researched how doc2vec could be used for the prediction. He figured that we need to gather more technical terms from some external source like Wikipedia to completement lack of data.

### Modified GUI Design (Jonathan)

Jonathan modified his original design of the GUI for the system based on a sample design provided by our contacts at Collins. The GUI will be completed before spring break, and from there we will just have to plug in our implementations of algorithms (Word Movers Distance, doc2vec, etc) to add the necessary functionality.

### Individual Contributions:

Name	Individual Contributions	Hours this Week	Hours Cumulative
Jonathan Murphy	<ul style="list-style-type: none"><li>• Sprint meeting with Collins Aerospace</li><li>• Visited Research Park</li><li>• Modified GUI design based on sample pictures provided by Jason (should be completed before spring break)</li></ul>	10	Approx. 34
Apurva Patel	<ul style="list-style-type: none"><li>• Sprint meeting with Collins Aerospace</li><li>• Implementation of Word Mover Distance</li><li>• Research on GloVE algorithm</li><li>• Visiting Research Park</li></ul>	11	38
Ryan Cerveny	<ul style="list-style-type: none"><li>• Implementation of Word Mover Distance</li><li>• Research on GloVE algorithm</li><li>• Jira Task</li><li>• Visiting Research Park</li><li>• Sprint Meeting</li></ul>	11	39
Takao Shibamoto	<ul style="list-style-type: none"><li>- Implementation of doc2vec</li><li>- Visiting research park and discussed the plan for parsing the data</li><li>- Discussed how to implement training text containing acronyms</li><li>- Sprint meeting</li></ul>	10	34

### Plans for Upcoming Week:

- Start Experiment/Develop GUI
- Design Project
- Implement GloVE algorithm

**Summary of Weekly Advisor Meeting:**

There was no advisor meeting for this week. As the student and the professor discussed to have bi-weekly meeting to see the actual progress on the project. However, the advisor is aware of the progress during the week of March 4- March 8. We will have a brief meeting on next friday before the start of the spring break.