

EE/CPR E/ SE Biweekly Report 3

9/23/2019 - 10/11/2019

Group Number: 08

Project Title: Artificially Intelligent Requirements 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

Bi-Weekly Summary:

Generated front end requirements, presentation for senior design presentation and worked on scripts for the excel report to be downloaded from the web tool

Jonathan has begun to develop a research paper documenting all of the research and findings related to Machine Learning topics throughout this semester. This will be shared with the Collins Aerospace clients after he feels he can suggest a feasible solution for the Model Stacking problem. Jonathan has researched and experimented with several libraries to try to aid with this solution, but could not find one that seemed to be a feasible solution. Thus, it appears that developing our own stacking algorithm may be necessary. Jonathan has also been working with the Explainable AI library (eli5) in an attempt to provide an explanation of predictions on non-preprocessed text as previously requested by Collins.

Past Week Accomplishments:

Created a python script to create excel reports of the

Individual Contributions:

Name	Individual Contributions	Hours	Hours Cumulative (continuation)
Jonathan Murphy	→ Developed research paper documenting current status of ML research. I plan to go through that with our contact at Collins after I have found a feasible solution for the Model Stacking problem	10	Approx. 123

	<p>→ Research and experimentation with libraries that could potentially</p> <p>→ Assisted in development of our first PIRM presentation</p> <p>→ Working with the Explainable AI (eli5) library to provide explanations on the preprocessed text (currently it only displays the requirements after they have been preprocessed)</p>		
Apurva Patel	django rest framework : creating api for Ryan script	5	125
Ryan Cerveny	Created python script to generate excel reports for user to download from the webtool	10	Approx. 105
Takao Shibamoto	Taking Kubernetes Udemy course to learn how to use it and how to apply it into our project. Started working on the report page (frontend)	5	105

Plans for the Upcoming Week:

- Create Reports page
- Put link to reports download in history page
- Create api endpoint for the excel download to be handled