

sddec18-16: Use machine learning to predict relevant support content based on historical user

Week 10 Report
April 15 - April 30

Team Members

Erin Elsbernd — *Communication Coordinator and Machine Learning Lead*

Ram Luitel — *Project Manager & Software Architect*

Faizul Jasmi — *Testing & AWS Tech Lead*

Khoa Bui — *Database & Web Master #2*

Taizhong Huang — *Testing*

Christian Chiang — *Web Master & AWS Tech Lead*

Summary of Progress this Report

- Meet with Alex, talked about automating the data cleaning process, at first we thought about just using Google Cloud, but as we have more experience using AWS, we decided to implement their services.
- Models are still at 64% accuracy (the highest)
- Testing the grouping class labels and performing classification models in rounds.
- Present final presentation with Faculty members, Dr. Zambreno and our clients from Workiva

Pending Issues

- Accuracy still not 70%, we are having a bottleneck with the lack of data. We will keep working to improve accuracy.
- Expecting more data.
- Switching gear to think more cloud wise instead of locally developing the models

Plans for Upcoming Reporting Period

N/A

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Erin Elsbernd	I worked on group the help articles based on the sub-categories the client provided us with. Grouping the articles this way saw the accuracy increase to 64%. I also worked on the final project plan, design doc, and presentation.	9	82
Ram Luitel	tried to predict the title based on event sequences and related articles based on contents and categories, this continues of last week work. I also polish my code to push on git lab. Spend most of my time in revising project plan, design document and preparing	10	72

	the final presentation. Practiced and present final presentation.		
Faizul Jasmi	Worked on a model for an automatic data pipelining to feed the scripts in AWS. Prepared slides for final presentation.	5	50
Khoa Bui	Researched about Google Cloud and Microsoft Azure as a different solution for AWS. Tested some of their models to prepare for the next semester as well. Updated the website. Designed flowchart for final presentation	5	54
Taizhong Huang	Fix the previous testing problems of before. Tried to improve my model by adding a new feature, but failed. prepared for final presentation.	5	56
Christian Chiang	Focused of the system architecture for next semester. Thinking of bringing everything to the cloud (models, data cleaning, pipeline) for ease of use. Researched about cloud technology and the different services, decided to go with AWS. Worked on the final presentation. Fixed some problems with the website	7	54