

CS/SSW 555 Agile Methods

Group 22 LitHub
Sprint #1
2/16/2024

Project Background Information

Selected Project Option Number: Option 1

Main Objective of Project:

Our objective of this project is to create a 3D visual rendering of a model of a brain using EEG/MEG that surgeons can study and locate areas of interest. We do this by first intaking EEG/MEG data and storing it in the cloud. Then next we want to use Source Localization Algorithms to pinpoint the sources of brain activity. After that we plan to make a 3D visualization system that generates a reconstruction of the brain. With the model, we also want to allow surgeons to enhance visuals provided by the reconstruction to pinpoint and study areas of interest. We also plan to add real time rendering to the program.

Team Members and Roles:

Name	Role
Jake Gebeline	Product Owner
Michael Savino	Scrum Master
Grant Shufelt	Developer
Dave Frost	Tester
Alexander Bakos	Developer

List & Description of Each Sprint:

Sprint #	Objective
Sprint 1	Data Integration and Storage <ul style="list-style-type: none">• Setup cloud infrastructure• Prepare preprocessed data• Implement manipulation scripts
Sprint 2	Source Localization Algorithms Implementation <ul style="list-style-type: none">• Integrate Algorithms to process data• Thoroughly Test and adjust algorithms
Sprint 3	3D Visualization System Development

	<ul style="list-style-type: none"> • Design and Develop a 3D visualization system • Implement ability to enhance visualization/view regions of interest
Sprint 4	Additional Functionalities and Enhancements <ul style="list-style-type: none"> • Brainstorm additional functions to aid surgeons • Develop chosen functions • Conduct thorough testing

Project Links:

Type	URL
GitHub/GitLab/Etc	https://github.com/msavino16/SSW555-Group22
Jira	https://stevens-msavino.atlassian.net/jira/software/projects/KAN/boards/1
Live Demo (if applicable)	

Technology Stack Used:

Type	Technology
User Interface	JavaScript, CSS, HTML
Backend	Python
Database	Pandas, Numpy

Sprint Progress Update: Current Status

Summary of Work Completed

- Completed issues on Jira Backlog
- Met as a team to discuss and look back
- Generated Burndown chart for reference
- Made a list of things we want to keep doing vs things we need to do better

Screenshot of Jira Backlog

Sprint 2

19 Mar – 29 Mar (7 issues)

0

0

7

Complete sprint

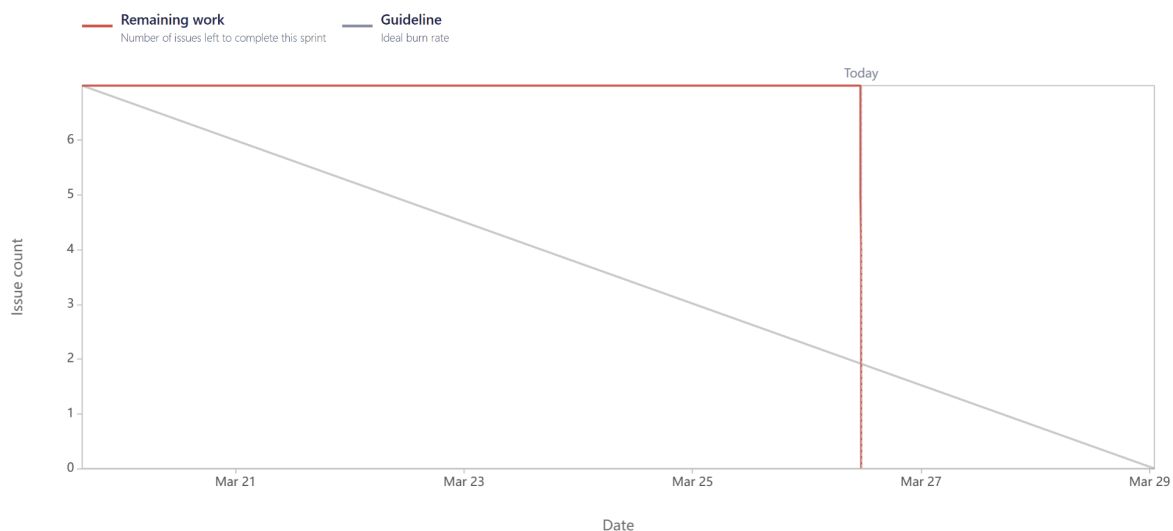
...

<input checked="" type="checkbox"/> KAN-26 Implement reshape functions	DONE ▾	GS
<input checked="" type="checkbox"/> KAN-25 Implement Normalization Functions	DONE ▾	GS
<input checked="" type="checkbox"/> KAN-28 Evaluate algorithms to highlight adjustments we can make to enhance performance.	DONE ▾	AB
<input checked="" type="checkbox"/> KAN-24 Update Readme on github	DONE ▾	JG
<input checked="" type="checkbox"/> KAN-23 document each step of the process to record which algorithms are operating and which fixes need to be ma...	DONE ▾	DF
<input checked="" type="checkbox"/> KAN-22 Test each algorithm, evaluate for issues and adjust as necessary.	DONE ▾	MS
<input checked="" type="checkbox"/> KAN-21 Integrate the correct algorithms to process data	DONE ▾	MS

+ Create issue

Screenshot of Burndown Chart

Date - March 19th, 2024 - March 29th, 2024



Screenshot of QA Results

We do not have any QA results yet.

Screenshot(s) of Interface (Lo-Fi, Mid-Fi, or Hi-Fi)

We do not have any interface yet because the project has just been created.

Video of Project at Current State:

It does not need to be one edited video. If there are multiple videos, please link all of them below:

Public Video URL (Google Drive, Loom, Etc)
No video yet, Just created all project accounts and teams.

Sprint Progress Update: Current Blockers

Timeline Impacts:

Type	Impact
Create websites and programs to start working	Adds 1 week

Looking Ahead: Next Sprint

- Start outlining what the first sprint will look like
- Divide the work in each sprint to have goals and specify what has to be done
- Assign issues on Jira
- Have a rough estimate of when the project will be finished

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