

## Van Gogh via the Rainbow, Beyond RGB 2.0

February 13th 2024 - February 20th 2024

<b>Progress</b> <ul style="list-style-type: none"><li>• PRed ref_data changes (Josh)</li><li>• Created an updated BeyondRGB 2.0 for testing and use by sponsors</li><li>• Sent agenda to Sponsors (Josh)</li><li>• Updated frontend calibration report page to include target image (Rob)</li><li>• Set up Windows installer (Sam)</li><li>• Fix auto-sort bug (Sam)</li></ul>	<b>Risks</b> <ul style="list-style-type: none"><li>• Installing Rawspeed on Mac</li></ul>
<b>Plans</b> <ul style="list-style-type: none"><li>• Review pending PRs (Team)</li><li>• Do peer evals (Team)</li><li>• Fill out midterm retrospective (Team)</li><li>• Finish target image display on Report page (Rob)</li><li>• Get started on displaying measured spectral reflectance (Jon)</li><li>• Figure out if it is possible to stop the processing thread (Jacob)</li><li>• Review and continue testing ref_data changes (Josh)</li><li>• Set up auto-sort for batch processing (Sam)</li></ul>	<b>Needs</b> <ul style="list-style-type: none"><li>• \$30 for new Puzzle</li></ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

February 6th 2024 - February 13th 2024

<b>Progress</b> <ul style="list-style-type: none"><li>• Made PR for report header bug (Rob)</li><li>• Color managed target image being created (Jon)</li><li>• Frontend and backend batch processing merged (Jon)</li><li>• Started on displaying target image in Report page (Rob)</li><li>• Agenda Drafted and sent (Josh)</li><li>• ref_data feature updated (Josh)</li></ul>	<b>Risks</b> <ul style="list-style-type: none"><li>• Figuring out how to create an installer for different OSs</li><li>• Old Mac</li></ul>
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<ul style="list-style-type: none"> <li>● Merge batch processing backend into frontend and confirm requests are working as expected (Sam &amp; Jon)</li> </ul>	
<b>Plans</b> <ul style="list-style-type: none"> <li>● Review pending PRs (Team)</li> <li>● Finish target image display on Report page (Rob)</li> <li>● Work on creating a fully updated 2.0 branch for release (Jon)</li> <li>● Fix possible target image and file name issues in batch processing (Jon)</li> <li>● Work on backend part of “Stop Processing” button (Jacob)</li> <li>● Clean up ref_data changes (Josh)</li> <li>● Ensure that the ref_data folder does not duplicate ref_data files when added (Josh)</li> <li>● Create Batch Processing image auto sorting (Sam)</li> <li>● macOS build (Josh)</li> <li>● Fix auto-sort bug (Sam)</li> <li>● Set up auto-sort for batch processing (Sam)</li> <li>● Windows build (Team)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>● Old Mac</li> </ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

January 30th 2024 - February 6th 2024

<b>Progress</b> <ul style="list-style-type: none"> <li>● Review Pending PRs (Team)</li> <li>● Reviewed the format that the backend requires from the reference data (Josh)</li> <li>● Pushed changes to objects such that they now take in a reference Data folder (Josh)</li> <li>● Agenda drafted and sent to sponsor (Josh)</li> <li>● send multiple requests to the backend in the batch processing flow (Sam)</li> <li>● Created PR for “open file location” bug (Rob)</li> <li>● Fixed discovered bug causing incorrect R camera output (Jon)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>● Merging together frontend and backend of batch processing</li> </ul>
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<ul style="list-style-type: none"> <li>Finished backend work regarding batch processing output and efficiency (Jon)</li> </ul>	
<b>Plans</b> <ul style="list-style-type: none"> <li>Review pending PRs (Team)</li> <li>Pick up new ticket next week (Rob)</li> <li>Update tab flow to be reactive to batch image selection (Sam)</li> <li>Create graphs for requirements and defect metrics tracking</li> <li>Work on backend part of “Stop Processing” button (Jacob)</li> <li>Squash bugs that arose with my ref_data changes (Josh)</li> <li>Ensure that the ref_data folder does not duplicate ref_data files when added (Josh)</li> <li>Work on merging front and backend of batch processing (Jon)</li> <li>Start on color calibrating the Target image (Jon)</li> <li>Add Cypress to project and write a few tests</li> <li>Add documentation to the GitHub for how to setup and run Cypress locally (Jacob)</li> <li>Merge batch processing backend into frontend and confirm requests are working as expected (Sam)</li> <li>Create Batch Processing image auto sorting (Sam)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>Clarification from the sponsor on the backtracking issues</li> </ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

January 23th 2024 - January 30th 2024

<b>Progress</b> <ul style="list-style-type: none"> <li>Backlog Grooming (Team)</li> <li>Created PR for “viewing multiple reports” task (Rob)</li> <li>Narrowed down SpectralCalibration issue to a rounding error (Jon)</li> <li>Completed basic implementation of batch processing efficiency improvements</li> <li>Took a second look at the data files for reference data and analyzed the necessary changes needed (Josh)</li> <li>Agenda drafted and sent to sponsor (Josh)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>Returning to project after a month break</li> <li></li> </ul>
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<ul style="list-style-type: none"> <li>Fixed issue that caused target image to not render in batch processing flow (Sam)</li> </ul>	
<b>Plans</b> <ul style="list-style-type: none"> <li>Review pending PRs (Team)</li> <li>Start work on “Open File Location” button doing nothing bug (Rob)</li> <li>Update tab flow to be reactive to batch image selection (Sam)</li> <li>Create graphs for requirements and defect metrics tracking</li> <li>Make “Stop Processing” button (Jacob)</li> <li>Work on adding custom reference data that will persist through runs (Josh)</li> <li>Fix discrepancies in data in output files between initial and batch processing runs (Jon)</li> <li>Clean up and organize output files created during batch processing (Jon)</li> <li>Add Cypress to project and write a few tests</li> <li>Continue working on custom reference data feature (Josh)</li> <li>Fix processing page image rendering in batch processing flow (Sam)</li> <li>send multiple requests to the backend in the batch processing flow (Sam)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>Clarification from the sponsor about a few of the tickets in our backlog</li> <li></li> </ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

January 16th 2024 – January 23th 2024

<b>Progress</b> <ul style="list-style-type: none"> <li>Reviewed plan for this semester and set code freeze date (Team)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>Returning to project after a month break</li> <li></li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>Backlog Grooming (Team)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li></li> </ul>

<ul style="list-style-type: none"> <li>• Create PR for “viewing multiple reports” task (Rob)</li> <li>• Review pending PRs (Team)</li> <li>• Update tab flow to be reactive to batch image selection (Sam)</li> <li>• Create graphs for requirements and defect metrics tracking</li> <li>• Make “Stop Processing” button (Jacob)</li> <li>• Work on adding custom reference data that will persist through runs (Josh)</li> <li>• Get frontend to send necessary data pathfiles to backend for batch (Jon)</li> <li>• Determine which output files are incorrect during batch processing and fix them (Jon)</li> <li>• Apply improved batch processing efficiency to Spectral Processing (Jon)</li> </ul>	
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## Van Gogh via the Rainbow, Beyond RGB 2.0

November 16th 2023 – November 23th 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• Finalized Script for video (Team)</li> <li>• Shot footage for video (Team)</li> <li>• Created button to create a secondary child window of the application(Rob)</li> <li>• Add “create new window” button to Reports page (Rob)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• End of semester stressed from other classes</li> <li>• Thanksgiving break dividing momentum</li> <li>• Time split between development work and other end of semester deliverables needed</li> <li>• Unforseen C++ and svelte complexities</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Look into alternate methods of creating window/tab, limiting user functionality (Rob)</li> <li>• Review pending PRs (Team)</li> <li>• Update tab flow to be reactive to batch image selection(Sam)</li> <li>• Create graphs for requirements and defect metrics tracking</li> <li>• Make “Stop Processing” button (Jacob)</li> <li>• Work on adding custom reference data that will persist through runs (Josh)</li> <li>• Script work for the video (Josh)</li> <li>• Primary shots for video (Josh)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>•</li> </ul>

<ul style="list-style-type: none"> <li>• Get backend to re-use the other data it needs during batch such as color patch avgs (Jon)</li> <li>• Get frontend to send necessary data pathfiles to backend for batch (Jon)</li> <li>• Apply improved batch processing efficiency to Spectral Processing (Jon)</li> </ul>	
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## Van Gogh via the Rainbow, Beyond RGB 2.0 2023

November 9th 2023 – November 16th

<b>Progress</b> <ul style="list-style-type: none"> <li>• Environment setup on alternate PC and vcpkg manifest figured out (Jon)</li> <li>• Updated select image page to not have standard buttons(Sam)</li> <li>• Started looking into solutions for multiple tabs for displaying multiple reports (Rob)</li> <li>• Improved efficiency for batch image pre-processing (Jon)</li> <li>• Fixed issue with target overlay when backtracking (Jacob)</li> <li>• Reconstructed the reference data options to account for custom references (Josh)</li> <li>• Made the extended list of reference data persist over multiple runs (Josh)</li> <li>• Video proposal discussion (Team)</li> <li>• Got backend to take in and re-use M and Offset data for batch processing (Jon)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• End of semester stressed from other classes</li> <li>• Thanksgiving break dividing momentum</li> <li>• Time split between development work and other end of semester deliverables needed</li> <li>• Unforeseen C++ and svelte complexities</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Update tab flow to be reactive to batch image selection(Sam)</li> <li>• Create graphs for requirements and defect metrics tracking</li> <li>• Make “Stop Processing” button (Jacob)</li> <li>• Ability to create a simple secondary view of Reports within the same electron application (Rob)</li> <li>• Work on adding custom reference data that will persist through runs (Josh)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>•</li> </ul>

<ul style="list-style-type: none"> <li>• Run through a Udemey C++ course (Josh)</li> <li>• Script work for the video (Josh)</li> <li>• Primary shots for video (Josh)</li> <li>• Get backend to re-use the other data it needs during batch such as color patch avgs (Jon)</li> <li>• Get frontend to send necessary data pathfiles to backend for batch (Jon)</li> <li>• Apply improved batch processing efficiency to Spectral Processing (Jon)</li> </ul>	
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## Van Gogh via the Rainbow, Beyond RGB 2.0

November 2nd 2023 – November 9th 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• Created Figma for proposed frontend changes(Sam)</li> <li>• Learned more about the backend and developed a plan for efficient batch processing (Jon)</li> <li>• Wrote document to opt into Sr project awards (Sam)</li> <li>• Worked on script for demo video (Team)</li> <li>• Added libraries to help convert TIFF to JPEG2000 (Rob)</li> <li>• Added new page to allow user to select Batch processing or Single Image Processing (Sam)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• Multiple people working on batch processing could lead to merge conflicts</li> <li>• Laptop cannot handle running the software, PC having issues getting environment set up, need to figure out a way to test better (Jon)</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Create a jpeg2000 either through javascript or c++ (Rob)</li> <li>• Add new page on the frontend to upload images for batch processing (Sam)</li> <li>• Get environment to work on other, more powerful computer (Jon)</li> <li>• Get backend to process files using preset M and offset data (Jon)</li> <li>• Make “Stop Processing” button (Jacob)</li> <li>• Add everyone to project website organization (Jacob)</li> <li>• Work on improving efficiency of batch processing (Jon)</li> <li>• Have all batch processed images output to the same folder (Jon)</li> <li>• Work on adding custom reference data that will persist through runs (Josh)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Additional custom reference data if possible</li> </ul>

<ul style="list-style-type: none"> <li>• Script work for the video (Josh)</li> </ul>	
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## Van Gogh via the Rainbow, Beyond RGB 2.0

October 26th 2023 – November 2nd 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• Updated graph to show actual and expected values (Sam)</li> <li>• Started on what is needed for jpeg2000 image file creation (Rob)</li> <li>• Target patch shows up correctly after backtracking from error (Jacob)</li> <li>• Implemented a basic way of doing batch processing (Jon)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• Multiple people working on batch processing could lead to merge conflicts</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Create a jpeg2000 through the backend (Rob)</li> <li>• Add new page on the frontend to upload images for batch processing (Sam)</li> <li>• Make “Stop Processing” button (Jacob)</li> <li>• Add everyone to project website organization (Jacob)</li> <li>• Create Figma for proposed frontend changes(Sam)</li> <li>• Write document to opt into Sr project awards (Sam)</li> <li>• Work on improving efficiency of batch processing (Jon)</li> <li>• Have all batch processed images output to the same folder (Jon)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Additional custom reference data if possible</li> </ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

October 19th 2023 – October 26th 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• Sent instructions for Rawspeed(Sam)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• HALLOWEEN MEETING?! OOKY SPOOKY</li> </ul>
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<ul style="list-style-type: none"> <li>• Investigated the graphing libraries used on the front end (Sam)</li> <li>• Got system to process multiple images in a row (Jon)</li> <li>• Initial ideas for how to implement batch processing (Jon)</li> <li>• Discussions about deliverables for this semester (Team)</li> <li>• Environment fixed (Josh)</li> </ul>	<ul style="list-style-type: none"> <li>o Alt text: Halloween meeting?! ooky spooky</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Sprint 2 (Team)</li> <li>• Update graphs to have different icons for expected and actual</li> <li>• Attempt to get system to process multiple images in a row (Jon)</li> <li>• Create more formal plan for batch processing (Jon)</li> <li>• Work on choice of output image file format task (Rob)</li> <li>• Review all PR's (Team)</li> <li>• Finish backtracking functionality (Jacob)</li> <li>• Organize more thoughtful Error messages (Josh)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Info Session on BeyondRGB under the hood</li> <li>• Additional test data for batch processing <ul style="list-style-type: none"> <li>o Multiple art images with the same target, flatfield and darkfield images</li> </ul> </li> </ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

October 12th 2023 – October 19th 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• Rawspeed running on Sam's machine (Sam)</li> <li>• Finished work on reflectance csv update, awaiting code review (Rob)</li> <li>• Investigated the "outOfMemory" error (Josh)</li> <li>• Fully finished Target Coordinate task (Jon)</li> <li>• Started investigation into batch processing viability (Jon)</li> <li>• Finished most of backtracking task (Jacob)</li> <li>• Filed out midterm retrospective sheet (Team)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• Figuring out what direction to take with batch processing <ul style="list-style-type: none"> <li>o Parse C++ code and implement batch</li> <li>o Hook Python up to Frontend and fix calibration</li> </ul> </li> <li>• Environment set up continues to be an issue, some team members found that the build breaks after multiple tries</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Clarify what sponsor wants for backtracking functionality (Jacob)</li> <li>• Clarify acceptance criteria for the stop processing button functionality (Josh)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Ensure the correct version of a package is installed</li> <li>• Info Session on BeyondRGB under the hood</li> </ul>

<ul style="list-style-type: none"> <li>• Do code reviews and merge PRs for first sprint</li> <li>• Break down batch processing into smaller steps (Team)</li> <li>• Start work on updating marker shape in scatter plots (Sam)</li> </ul>	
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## Van Gogh via the Rainbow, Beyond RGB 2.0

October 5th 2023 – October 12th 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• Began work on Reflectance CSV update (Rob) <ul style="list-style-type: none"> <li>◦ Concern: Reflectance CSV may end up having two columns of data, one for values 0-1, another 0-100; (other solution is to add a different UI component)</li> </ul> </li> <li>• Began work on getting RawSpeed working (Sam)</li> <li>• Basic implementation of Target Coordinates working (Jon)</li> <li>• Began work on updating the output logs, giving the user more verbose (and current) output (Josh)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• Figuring out what direction to take with batch processing <ul style="list-style-type: none"> <li>◦ Parse C++ code and implement batch</li> <li>◦ Hook Python up to Frontend and fix calibration</li> </ul> </li> <li>• Rawspeed not working properly - Almost fixed!</li> <li>• Lack of motivation during break and because of midterms</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• All team members to individually fill out and review Midterm Evaluation doc</li> <li>• Figure out how to compile RawSpeed as a library and add it to libraw (Sam)</li> <li>• Fix issues with back button when setting up image processing (Jacob)</li> <li>• Update project website. Work on setting up scheduled deployments (Jacob)</li> <li>• Finish up Target Coordinates: Make look nicer, apply to Verify target, look into units (Jon)</li> <li>• Finish Reflectance CSV story (Rob)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Info session on BeyondRGB under the hood</li> </ul>

<b>Progress</b> <ul style="list-style-type: none"><li>• Set up dev branch (Rob)</li><li>• Delegated stories (Team)</li><li>• Finish Final Plan (Team)</li><li>• All dev environments running properly (sans rawspeed) (Team)</li></ul>	<b>Risks</b> <ul style="list-style-type: none"><li>• Figuring out what direction to take with batch processing<ul style="list-style-type: none"><li>○ Parse C++ code and implement batch</li><li>○ Hook Python up to Frontend and fix calibration</li></ul></li><li>• Rawspeed not working properly</li><li>• Concerns on ability to get stories done in one sprint</li><li>• Concerns on ability to estimate story effort with low codebase knowledge</li></ul>
<b>Plans</b> <ul style="list-style-type: none"><li>• Begin work on Color Calibration story (Jon)</li><li>• Begin work on Reflectance CSV update (Rob)</li><li>• Begin work on frontend backtracking story (Jacob)</li><li>• Begin work on “Out of memory error readability” story (Josh)</li></ul>	<b>Needs</b> <ul style="list-style-type: none"><li>• Sam to determine which story she wants to work on</li><li>• Each team member needs to set up their own dev branch off of <code>beyond_rgb_2.0</code></li><li>• To log any errors, bugs, and unreadable error messages, including steps to reproduce, as they are encountered (Leah and Susan)</li></ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0 2023

September 21th 2023 – September 28th

<b>Progress</b> <ul style="list-style-type: none"><li>• Set up team project board (Sam)</li><li>• Create Development Methodology deliverable (Sam)</li><li>• Project website created (Jacob)</li><li>• Created agenda for Tuesday (Team)</li><li>• Created Domain Model deliverable (Jon)</li><li>• Created Process and Project Metrics deliverable (Jon)</li><li>• Planned out possible solution for calibration instability (Jon)</li><li>• Updated Final Plan Document (Team)</li></ul>	<b>Risks</b> <ul style="list-style-type: none"><li>• Figuring out what direction to take with batch processing<ul style="list-style-type: none"><li>○ Parse C++ code and implement batch</li><li>○ Hook Python up to Frontend and fix calibration</li></ul></li><li>• Sam will be out for Grace Hopper Conference 9/26 &amp; 9/28</li><li>• Rawspeed not working properly</li><li>• Access to GitHub</li></ul>
<b>Plans</b> <ul style="list-style-type: none"><li>• Delegate (and review) user stories for the first sprint, so everyone gets familiar with code base</li><li>• Create Final Plan (Team)</li><li>• Create Milestones and Deliverables (Jon)</li><li>• Get Rawspeed to work</li></ul>	<b>Needs</b> <ul style="list-style-type: none"><li>• Access to Github Repo</li></ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0 2023

September 14th 2023 – September 20th

<b>Progress</b> <ul style="list-style-type: none"><li>• Got C++ and javascript projects built and running</li><li>• Working on setting up both projects locally (Jacob)</li><li>• Investigated calibration instability (Jon)</li></ul>	<b>Risks</b> <ul style="list-style-type: none"><li>• Project is split between C++ and Python releases</li><li>• Sam will be out for Grace Hopper Conference 9/26 &amp; 9/28</li><li>• Low Team Experience with C++</li></ul>
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	<ul style="list-style-type: none"> <li>• Rawspeed not working properly</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Set up team project board (Sam)</li> <li>• Create Github Pages website (Jacob)</li> <li>• Create Development Methodology deliverable (Sam)</li> <li>• Create Domain Model deliverable (Jon)</li> <li>• Create Process and Project Metrics deliverable (Jon)</li> <li>• Write project synopsis (Rob)</li> <li>• Finalize tools and techniques and submit deliverable</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Access to Github Repo</li> <li>• Access to Google drive from Sponsor</li> </ul>

## Van Gogh via the Rainbow, Beyond RGB 2.0

September 5th 2023 – September 14th 2023

<b>Progress</b> <ul style="list-style-type: none"> <li>• First sponsor meeting (Team)</li> <li>• Send out weekly agenda(Josh)</li> <li>• Completed team activity</li> <li>• Understand requirement priorities (Team)</li> <li>• Established Team Roles (Team)</li> </ul>	<b>Risks</b> <ul style="list-style-type: none"> <li>• Project is split between C++ and Python releases</li> <li>• Sam will be out for Grace Hopper Conference 9/26 &amp; 9/28</li> <li>• Low Team Experience with C++</li> </ul>
<b>Plans</b> <ul style="list-style-type: none"> <li>• Get backend and frontend to build completely(Team)</li> <li>• Start up a backlog (Team), first need to be added as members to repo</li> <li>• Create more questions to ask the Sponsor (Team)</li> <li>• Set-up Team website (Team)</li> </ul>	<b>Needs</b> <ul style="list-style-type: none"> <li>• Access to Github Repo</li> <li>• Access to Data drive from Sponsor</li> </ul>