

Sprint 3 Report

Product Name: Automatic Cell Counting

Team Name: Cell Counting Project

Date: 05/18/2021

Actions to stop doing:

- Stop overcomplicating things.

Actions to start doing:

- We can only test in Google Collab, so we are making all of our changes in the Google Collab. We need to commit our changes from Google Collab to our GitHub more frequently.

Actions to keep doing:

- Keep code in separate branches and merge regularly to main.
- Working together to solve problems we encountered and helping each other out.
- Team communication is really good and we are aware of what each of us is working on and whether we need help or not.
- Ask TA for advice more often. Akila has a ton of really useful prior knowledge about these kinds of projects.
- Keep updating the burnup chart regularly.
- Keep communicating in Discord all our problems and keep everyone in the group informed.
- Keep revising user stories when progress is not as expected.

Old actions to keep doing

- Daily scrum meetings are within the time limit. We were good at summarizing our progress and needs while getting all necessary information across.
- Important documents and other notes are in the Drive for everyone to use. It's well organized and there has been very little confusion as to where documents are located.
- Using the Trello to organize our tasks. We did have a very good organization on Trello during the times we did use it. It helps keep the whole sprint in perspective and helps keep us from getting lost in the weeds.

Work completed:

- We have trained two models (nucleus and balloons) that can predict on cell images that are similar to the ones we trained with!
- We have a python notebook that we can use to quickly download our code and start working on it.
- We have a script to convert the jsons to the correct format for the model.
- We have a way of creating dummy masks to run predictions
- We have designed a more ideal architecture for our codebase
- We rebased our code to be more modular and abstracted
- We have made a test fixture for our UI and have written 3 unit tests for our code.

Old work completed:

- We completed the UI download option
- We are able to train the model without running into input errors due to the difference between our Jsons and their jsons.
- We are able to run predictions without encountering formatting errors.
- We finished annotating images

Work not completed:

- We want to train with more of our data to have a larger variety of cell image types that we can accurately predict on.
- Nothing from our model has been hooked up to the GUI yet.
- We want to add some more unit tests.
- We want to be able to tell users the average size of cells in the images.

Work completion rate:

User stories completed: 1

Total number of estimated ideal work hours: 87

Total number of days in past sprint: 14

User Stories/Day: $1/14 = 0.07$

Ideal Work hours/Day: $87/14 = 6.21$

