Sprint 1 Report (01/30/2024) - ImageGen

Actions to Stop Doing:
These are the activities or actions the team determined they should stop doing. This is the answer to the question, "What things should we stop doing?" The items should take the form of a brief description of what the team wants to stop doing, followed by a brief explanation. If there are no items, this section should describe why the team is completely satisfied with their current process.

- **Stop Researching Other Models and Abandon Instruct Pix2Pix:** We stopped researching different image generation and img2img models because we found many of them were based on Stable diffusion models but fine tuned. In addition, we found that Stable Diffusion can be used for both of our features, ImageGen and ImageEdit, simplifying things and using less resources overall.

Actions to Start Doing
These are the activities or actions the team would like to start doing to improve their development process. This is the answer to the question, "What should we start doing?" The items should take the form of a brief description of what the team wants to start doing, followed by a brief explanation.

- **Start exploring and implementing Stable Diffusion models**: They offer image-to-image and text-to-image. These models are better fit for our website functionality.

Actions to Keep Doing:
This is the answer to the question, "What is working well that we should continue to do?" The items should take the form of a brief description of what the team wants to start doing, followed by a brief explanation.

- **Researching:** We need to keep studying new models and exploring how to improve captionGen. One idea is to include an LLM that can make captions funny. Another option, is training our own LLM model to create funny instagram captions by training it using Instagram posts as our dataset.
- **Pair Programming.** Pair programming plays a crucial role in our current work, particularly because some team members lack Nvidia GPUs. As a result, it's essential to pair these individuals with someone who possesses a GPU. This collaborative approach enables them to work together effectively, leveraging the GPU resources to accelerate our development process.
- **Focus on Developing Basic Frontend Website**: This is used to test the APIs in flask and determine if the backend imageGen and other features are working properly.

- **Using Discord**: We utilized Discord for our group development session code or demo things together. We also used it for sharing relevant resources since you can pin messages.

Work Completed + Not Completed:
This is a list of the user stories that were completed during the previous sprint, and a list of the user stories not completed during this sprint (but which were part of this sprint and were in the sprint plan).

As a user, I want to interact with a website to input an image and/or caption. (Completed)
- Task 1: Setup React (Completed)

As a user, I want to be able to generate a descriptive caption from a picture I have uploaded. (Completed)
- Task 1: Edit CaptionGen to show both BLIP caption and LLM caption (Completed)
- Task 2: Link model to frontend (Completed)

As a user, I want to quickly edit my photos(with a prompt) so that I can post them on my social media (ImageGen). (Completed)
- Task 1 - Setup model for image generation (Completed)
- Task 2 - Link model to frontend (Completed)
- Task 3 - Social Media Integration (Product Backlog)

Work Completion Rate:
This section should report the following: total number of user stories completed during the prior sprint. Total number of estimated ideal work hours completed during the prior sprint. Total number of days during the prior sprint. For the previous sprint, the user stories/day and ideal work hours/day figures should be reported. For sprints past the first sprint, this section should also provide the average user stories/day and average ideal work hours/day figures computed across all sprints to date. The final sprint burnup chart for the previous sprint should be available for viewing in the lab and an email of this chart sent to the TA/prof.

Numbers of Story worked vs. Estimates:
- We estimated 50 hours across our six user stories. We actually worked about 45 hours.

- For the most part, we worked an average of 3.57 hours per day.

Burn-up Chart: