

## **EE/CprE/SE 492 Status REPORT 2**

**Start Date – End Date:** January 31 - February 13

**Group number:** 25

**Project title:** dripdrop

**Client &/Advisor:** Simanta Mitra

### **Team Members/Role:**

Team Liaison/Communication Leads: Zachary Foote

Research Lead: Logan Roe

Project Manager: Kaden Wingert

Technical Lead/Architect: Elyse Kriegel

Testing/Quality Assurance: Gavin Rich

Documentation/Meeting Lead: Kolby Kucera

### ○ **Weekly Summary**

The website had some code that was cleaned up to reduce duplication as well as connecting the frontend with the backend when a user's profile is clicked from the search component, and when a post is clicked from the feed. Our AI progress is getting close to an initial model that can be used on our application. To support this, we created 5 new tables in the backend to handle all of the data AI will use: Tag, Item, Coordinates, ClothingItem, and ClothingItemTag. We finished refactoring the backend code to make the lambdas as efficient as possible. Started working on the backend for Likes and Comments. We also are figuring out as a team what the process of generating tags with the AI will look like on the frontend. We had an extended discussion followed by two members creating Figma sketches of what this might look like on the frontend to give the team a better idea. Further, for the backend, the feed and HasSeen tables were implemented with full functionality implemented as well.

### ○ **Past week's accomplishments**

Kaden Wingert:

- Added logic to navigate to a user's profile when their name is clicked from a post they created
- Made posts clickable from the feed. This takes the user to the viewPost screen with their post's details.
- Wrote the code to navigate to the user's profile page when searched and their profile is clicked.
- Cleaned up some duplicated code on the frontend of the website

- Fixed the hover effect on postcards
- Removed the 'lists' item from the sidebar since we will not be implementing it as we determined its priority is too low for us to get to it this semester
- Created a document including a detailed list of the features we want to develop this semester, as requested by our advisor
- Created Figma mockup for the website on how the user and AI will interact with creating a post. See the views at the bottom of the figma page:  
<https://www.figma.com/design/RyQ4NldyaYdl6AO4poBzzl/Chrome-Extension-Views?node-id=0-1&p=f&t=L5o9t5G7jFeqRnfZ-0>
- Began working on the drafts feature. Created a tab for drafts under a user's profile and made a section in the sidebar to link to it

Gavin Rich:

- Worked on fixing expo front-end bugs, particularly with expo not loading updates.
- Redesigned Figma mockup for home feed on mobile app view
- Created Figma mockup for mobile profile screen
- Designed mobile post flow using Figma including captions and item tagging

Kolby:

- Finished refactoring the backend to optimize lambda performance. Focused on making lambdas as "Slim" as possible
- Fixed Update User endpoint so that it checked that the new username or email doesn't already exist
- Fixed follow and unfollow user to check that both provided user ids exist
- Created Item, ClothingItem, ClothingItemTag and Coordinates table
- Started working on updated /createPost endpoint that can incorporate populating all of these tables when a user first creates a post
- Created Likes Table and Comments Table
- Working on creating lambda endpoints for likes and comments - more work still needs to be done here.

Logan Roe:

- Made miscellaneous improvements to the HasSeen functionality.
- Fully tested HasSeen functionality, including the ability to mark posts as seen, view the users that have seen a given post, view the posts that a given user has seen, and reset the posts that a given user has seen.
- Fix bugs with the feed algorithm.
- Add another filter to the feed to avoid including posts created by the given user.
- Test the feed algorithm to ensure it properly returns posts for a given user.

Zachary Foote:

- Set up Expo to be able to run mobile application directly from my iphone.
- Continued learning React Native and has been creating the sign up page.

- Created sketches to show how the frontend will look for the user to have the AI to generate tags for their uploaded images and to show what this process will look like when the user is waiting for tags to be generated.
- Created a list of non-functional requirements for our team this semester, as requested by our advisor.

Elyse Kriegel:

- Created jupyter notebooks needed to deploy ai model
- Deployed ai model to sagemaker
- Create infrastructure via cdk for the sagemaker deployment
- Tweaked AI code to work more in the cloud compared to local development

○ **Pending issues**

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○ **Individual contributions**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Kaden Wingert	I added logic to navigate to a user's profile when their name is clicked from a post they created. Posts are now clickable from the feed. This takes the user to the viewPost screen with their post's details. I also wrote the code to navigate the user to the correct profile screen when searching. I also cleaned up more of the UI code and made posts change color slightly when hovered over. Removed the lists item in the sidebar as we discussed that we will not be implementing this given our timeline. I also created a document for our advisor, which includes more details regarding the features we want	16	22

	to implement this semester. Created figma page for how the clothing item details will be populated when a user creates a post. I started on creating the UI for drafts which are posts that are not publicly viewed. I created a link to a user's drafts from the sidebar, as well as created a tab on the user profile screen to toggle between the public posts and drafts		
Kolby Kucera	Finished refactoring the backend to optimize lambda performance. Focused on making lambdas as "Slim" as possible. Fixed Update User endpoint so that it checked that the new username or email doesn't already exist. Fixed follow and unfollow user to check that both provided user ids exist. Created Item, ClothingItem, and Coordinates table. Started working on an updated /createPost endpoint that can incorporate populating all of these tables when a user first creates a post. Created Likes Table and Comments Table. Worked on creating lambda endpoints for likes and comments - more work still needs to be done here.	9	13
Logan Roe	I made various improvements and bug fixes to HasSeen functionality and fully tested its functionality, including the ability to mark posts as seen for a user, see what posts a given user has seen, see what users have seen a given post, and reset the posts that a user has seen. I made improvements to the feed algorithm, such as not returning posts created by the given user, fixed various bugs, and tested the feed algorithm.	6	11
Gavin Rich	I wasn't able to do a lot of dev work this week due to technical difficulties with Expo. Mainly worked on fixing expo bugs such as the inability for expo to display front-end updates. I worked on several Figma mockups	5	8

	for the mobile app including the home feed, profile page, and the post flow including writing captions and tagging clothing items.		
Zachary Foote	I set up Expo to be able to run our mobile application code directly on my iphone. I have been learning React Native as I have been progressing through the sign-up page. I created Figma sketches for what the frontend will look like for when the user is uploading an image to be posted. The sketches show the generating tags step, and what the user can do while this is occurring, and then how the user can get back into the post to finalize it. I also created a thorough list of non-functional requirements for the application this semester.	8	11
Elyse Kriegel	I developed the necessary Jupyter notebooks needed for the deployment of an AI model on AWS SageMaker, this allows easy integration with cloud-based workflows. The deployment process involved configuring and optimizing the model for SageMaker inference endpoints, handling resource allocation, and ensuring efficient model performance. Additionally, I used AWS CDK to automate the infrastructure setup for the deployment, allowing for the creation of resources such as SageMaker endpoints, IAM roles, and storage solutions.	10	17

○ **Comments and extended discussion**

We received an email from a patent attorney on behalf of the hydration company Dripdrop. They wanted to ensure that our domain name, dripdropco.com, does not infringe on their copyrights. We emailed them, stating that our website is only for a college project, and are waiting for their reply.

- **Plans for the upcoming week**

Kaden - Clean up the frontend a bit more with regards to extracting the API calls to a common file. Implement the framework for the suggesting of similar products even if the backend is not yet ready.

Kolby - Finish developing lambda for likes and comments. Fully test all the new endpoints. Work on lambda snapstarts. Work on finding a way to update existing tables in our database.

Logan - Finalize feed algorithm work and move over to the frontend. I plan to work on either the website or the application, depending where the most help is needed.

Zach - Finish the sign in page and start working the home page for the mobile application. Specifically, loading the feed would be the best starting point, especially with Logan's new feed algorithm.

Elyse - Integrate the sagemaker inference endpoints with the rest of the application. This will mean the creation of a proper creation of a aws step function and connection to existing lambdas.

Gavin - Finish expo bug fixes so I can help Zach with mobile home feed. Also start working on building the mobile profile page. If I have time, I'd like to incorporate following on the mobile app.

- **Summary of weekly advisor meeting**

- We will meet every other week on Thursdays from 2:30-3:00
- He said to think of the project regarding features (ex, different types of users) and use cases.
- Think in terms of tiers or services (ex fee tier, paid tier)
- Make a list of features we want to develop to share with Mitra
  - Use the items in the Gantt chart and add more of a description
- Make a list of nonfunctional requirements with Mitra
- Design is about weighing out the pros and cons of different decisions

- Whenever you do something, record it
- For the AI, if the color is not accurate, you can just look at the Hex code of the pixel.
- Use Typescript for the mobile app with the Expo
  - Expo builds on top of React Native