
EE/CprE/SE 492 WEEKLY REPORT 01

16/1/24 – 27/1/24

Group number: 07

Project title: Skin Cancer Diagnosis Using Artificial Intelligence on the Cloud

Client &/Advisor: Ashraf Gaffar

Team Members/Role:

Evan Hanson - Project Manager/Programmer

Ziyad Alqahatani - Researcher/Programmer

Wonjun Choi - Researcher/Programmer

Anirudh Ambore - Researcher/Programmer

Abdelrahman Mohamed - Researcher/Programmer

Mishari Alharbi - Researcher/Programmer

o **Weekly Summary**

- This semester we are changing our focus. Before, we were very focused on the idea of running one specific model only and attempting to get the highest “accuracy” with said model. After our meeting and feedback from our presentation. We have realized this is both not an accurate measurement and that it is also not sufficient for our project goal.

o **Past week accomplishments**

- Since we have only started the semester, we have not accomplished much. We have decided on meeting times and places and planned for the next phase of our project.
- We have identified pre-trained models we would like to use on our dataset and are beginning to test them out.
- The team has been familiarizing themselves with the Keras interface of the Tensorflow library for the AI model.
- Some team members have started working with AWS.

o **Pending issues**

- We have to run through multiple Git repositories to see the options for models already created.
- We need to use multiple models and check the results.
- We need to decide how to train our AI models on large datasets with technical limitations of our personal computers.
- Decided to continue working on the Flutter application where users can upload their images and receive their reports there.
- Learn more in-depth about teaching AI models.
- Decide how we will connect our service to the Cloud using AWS and GCP.

o **Summary of weekly advisor meeting**

- We discussed the feedback we received from our panel last semester, with Professor Gaffar telling us how to address those issues.
- We will focus on using and comparing pre-trained models (transfer learning) instead of developing models from scratch.
- Another focus would be doing Cloud benchmarking (AWS and GCP) to measure performance.

o **Plans for the upcoming week**

- Next Submission will include meeting with advisor as he was unable to meet with us before the due date of this report. We plan to meet with the professor over the next week to discuss what has been mentioned above along with finding what goals we should focus on as we begin our implementation stage of our project.

o **Individual contributions**

<i>Team Member</i>	<i>Contribution</i>	<i>Weekly Hours</i>	<i>Total Hours</i>
<i>Evan Hanson</i>	<i>Basic AI Training over skin cancer detection, Set up AWS Instances for running our services.</i>	<i>10 Hours</i>	<i>200</i>
<i>Anirudh Ambore</i>	<i>AI Model Training Fine-tuning models Data Collection Testing</i>	<i>10 Hours</i>	<i>200</i>
<i>Wonjun Choi</i>	<i>Setup AWS Backend for Flutter</i>	<i>10 Hours</i>	<i>200</i>
<i>Ziyad</i>	<i>Setup the Flutter application</i>	<i>10 Hours</i>	<i>200</i>
<i>Abdelrahman</i>	<i>Setup Flutter for our application</i>	<i>10 Hours</i>	<i>200</i>
<i>Mishari</i>	<i>Setup the frontend of the Flutter application</i>	<i>10 Hours</i>	<i>200</i>