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Weekly Report No. 7

Artwork Super-resolution Scanning Application

03/26/2023 – 04/02/2023

Isaac Plambeck • Samuel Schaphorst • Garrett Powell

Client/Advisor: Dr. Thomas Daniels

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Weekly Summary

Past Week Accomplishments

As a Group

- Implemented a design plan, discussed different milestones, and created a schedule of how we believe this project will progress

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Isaac – *Software Development Lead*

- Presentation practice and further research on ways to implement the application. Working on group projects/assignments and website update.

Samuel Schaphorst – *Testing/Quality Assurance Lead*

- Discussed with Dr Daniels different methods to implement in my border detection code. He recommended that I use the Hough transform method instead of a simple

canny function. With that information I began learning how to use the Hough function with the canny function to improve accuracy of border detection

Garrett Powell – *Electrical Design Lead*

- Met with Dr. Daniels to discuss different border detection methods/algorithms.
- Looked into canny edge detection and Hough transforms.
- Practiced basic image processing techniques using openCV.

Pending Issues

As a Group

- None

Isaac

- None

Samuel

- Learning how Hough function works in python, been troubleshooting with different parameters to get results

Garrett

- None

Individual Contributions

Team Member	Contributions	Hours - This Week	Hours - Cumulative
Isaac Plambeck *Software Development Lead*	• Continued learning coding methods to use for app. Along with assignments and presentations we had in class.	3	33
Samuel Schaphorst *Testing/Quality Assurance Lead*	• Implemented Hough Transform function into border detection code	6	27
Garrett Powell	• Python/openCV practice.	6	26

Electrical Design Lead	• Hough transform and canny edge detection research.		

Comments and Extended Discussion

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Plans for the Upcoming Week

As a Group

- Meet with Daniels, continue working with border detection and troubleshooting with different open cv image scanning functions

Isaac

- Work more on the application with team and try to see where we stand on our full idea how start visualizing the application.

Samuel

- Try to implement and make improvements to the Hough transform code to increase border detection accuracy

Garrett

- Continue image processing techniques using python and openCV.
- Look more into canny edge detection and Hough transforms to further my understanding.

Summary of Weekly Advisor Meeting

- Discussed various open cv functions that we could use to increase accuracy of different image scanning techniques we will be implementing into our program
- Focused in on Hough Transform function to increase the accuracy of our current border detection code