



# Weekly Report No. 3

Artwork Super-resolution Scanning Application

02/13/2023 – 02/19/2023

*Isaac Plambeck • Reece Dodge • Samuel Schaphorst • Garrett Powell*

*Client/Advisor: Dr. Thomas Daniels*



## Weekly Summary

We're finally getting a grasp on forming team structure and building further collaboration infrastructure. We're building up to initial development of an application, as well as coming up with new approaches to solve our problem.



## Past Week Accomplishments

### As a Group

- Formed and signed team contract
- Formed and filled project management roles
- Formed a problem statement
  - "Artists need an affordable and robust method to produce true-to-life digital versions of their artwork for printing and archival purposes."

### Isaac – *Software Development Lead*

- Added Profiles to Website
- Built Base Hello World python template
- Set up test template on GitLab
- Helped team setup their own software development suite/integrations

### Reece Dodge – *Project Lead*

- Continued brainstorming led to potential design idea
  - Rail system phone mount with images rendered into unidirectional "strips"

- Strips would be stitched together along edges
- Researched panoramic image processing
- Setup GitLab repository on my machine

#### Samuel Schaphorst – *Quality/Testing Engineer*

- Practiced coding in python
- Became familiar with Github

#### Garrett Powell – *Electrical Engineering Lead*

- Began reviewing python, focusing on basics and syntax
- Gained access to GitLab

### Individual Contributions

<b><i>Team Member</i></b>	<b><i>Contributions</i></b>	<b><i>Hours - This Week</i></b>	<b><i>Hours - Cumulative</i></b>
<b><i>Isaac Plambeck</i></b>  <i>Software Development Lead</i>	<ul style="list-style-type: none"> <li>• Website update</li> <li>• GitLab commits</li> <li>• Base Template Application build</li> <li>• Helped team setup their own software development suite/integrations</li> </ul>	4	7
<b><i>Reece Dodge</i></b>  <i>Project Lead</i>	<ul style="list-style-type: none"> <li>• Continued brainstorming</li> <li>• Researched panoramic image processing</li> <li>• Setup GitLab repository on my machine</li> </ul>	3	6
<b><i>Samuel Schaphorst</i></b>  <i>Quality/Testing Lead</i>	<ul style="list-style-type: none"> <li>• Python review</li> <li>• Gitlab familiarity</li> </ul>	3	6
<b><i>Garrett Powell</i></b>	<ul style="list-style-type: none"> <li>• Python Review</li> <li>• GitLab</li> </ul>	3	6

<i>Electrical Engineering Lead</i>			
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## Plans for the Upcoming Week

### As a group

- Propose problem statement to Dr. Daniels and acquire feedback

### Isaac

- Upload Website Changes to public site (currently have the changes just on local)
- Add some features to starter application python build.
- Work on OpenCV and learning about what it is and how to use it in the starter Application

### Reece

- Speak with Dr. Daniels about the feasibility of design idea
- Learn the fundamentals of coding in Python

### Samuel

- Continue coding in python
- Start testing functions in python that may be used for final product

### Garrett

- Continue reviewing python
- Observe python applications of signal/image processing
- Become more familiar with GitLab

## Summary of Weekly Advisor Meeting

- Got further insight from Dr Daniels on what kind of functions and approaches we could take as a group
- He'd like to use gaussian normalization with data from the same types of pictures. OpenCV, python library using OpenCV
- Dr. Daniels walked us through some key aspects of of the design process and warned us of common pitfalls
  - Extra emphasis on consistent progress through first semester of Senior Design