

Milestones:

| Milestone | Description | Delivery Date |
|---------------------|--|---------------|
| Research | Have a good understanding of neural networks, GANs, image processing and manipulation | 1/10/22 |
| Training Data | Gather a large set of training data to feed into our generator model for image generation | 1/16/22 |
| Image Processing | Convert the training set images to usable data, and able to convert output data into viewable images | 1/30/22 |
| Generator Model | Code a functional model for taking in training data and outputting new original data similar to the training data | 2/13/22 |
| Discriminator Model | Code a functional model for determining validity of the generator's output data | 2/27/22 |
| Generate Images | Properly convert data returned from GAN into an image format. This also includes tweaking the model for both the discriminator and generator | 3/27/22 |
| Final Presentation | Have a completed poster, GAN demonstration, results, and several generated images for the tech exposition | 4/12/22 |

Task Timeline:

| # | Task Name | Milestone | Date Range |
|----|--|---------------------|-------------------|
| 1 | Research GANs | Research | 9/8/21 - 1/10/22 |
| 2 | Research Images Processing | Research | 9/8/21 - 1/10/22 |
| 3 | Research programming language to start with | Research | 9/8/21 - 1/10/22 |
| 4 | Research Neural Networks | Research | 9/8/21 - 1/10/22 |
| 5 | Investigate other feasible resources to train GANs effectively | Research | 9/8/21 - 1/10/22 |
| 6 | Gather training data | Training Data | 1/10/22 - 1/16/22 |
| 7 | Implement image processing and converting image into usable data | Image Processing | 1/16/22 - 1/30/22 |
| 8 | Implement a generator model | Generator Model | 1/30/22 - 2/13/22 |
| 9 | Implement a discriminator model | Discriminator Model | 2/13/22 - 2/27/22 |
| 10 | Test efficacy of the generator model output | Generate Images | 2/27/22 - 3/27/22 |
| 11 | Refine training and classification algorithm | Generate Images | 2/27/22 - 3/27/22 |

Effort Matrix:

| Task | Daniel | Effort Distribution | Tim |
|------|---------|---------------------|-----|
| 1 | Primary | | |
| 2 | | | |
| 3 | | Primary | |
| 4 | | Primary | |
| 5 | | | |
| 6 | | Primary | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | Primary | | |
| 11 | Primary | | |