



How to train your AI

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Summary

This project is a game made to demystify the processes of AI art generation. By putting the player in the position of an AI learning various objects by choosing whether images are real or fake, it will help the player understand the process with some abstraction of course. The project is looking to help people understand the process of machine learning by simulating a simplified version of a GAN. A GAN consists of two main parts, a generator and a discriminator. The generator creates new data, which will be what the player sees and will be carefully curated; the player will specifically take the role of the discriminator whose role is to determine if the generated data is real or fake. The player will also have a time limit to increase difficulty and there will be some quippy voicelines depending on how the player is doing.

Description

The research is looking to help people understand more of the processes of AI, as well as to bring awareness to how much data is needed to properly train AI. Currently, AI generated content is in a legal gray area. Who does the created work belong to? How do we properly credit artists for their contributions? How do we allow content posted to the internet to be opted out of generative AI? These questions and more made me think about how does AI actually generate it's content. By abstracting the process and showing people that it is not magic but instead a process that needs an immense amount of data, energy, and time, that it will help people question and think about the same questions that need answering as we develop and work with AI further.

Process

Currently, although people who are tech focused or curious about AI understand some of the processes, many people also do not understand the process. Using Unity, this project will show users one of these processes, that being GAN, with some obvious constraints, abstraction, and hopefully fun.

By creating a game where a user has to discern whether an image is real or fake based on the current prompt, that being a simple image such as a donut or a head of lettuce, they will actively participate in the process of AI art generation. They will have a timer to keep some pressure on them, as well as some quippy responses depending on their progress. Hopefully this will get people to further understand AI and question how we must use it.

Methods

- Research into AI and its various processes
- Programming of Unity game on AI art generation
- Creating assets for game
- Creating a survey for QA testing

Programs:

- Adobe Illustrator
- Unity
- Visual studio code
- Google Drive
- Github

Deliverables

- Unity game download file for Mac & PC
- Itch.io website with link to download game and full splash screen
- QA survey
- Analysis of results of QA survey

Required Resources

- Macbook Air M3 processor
- Adobe Suite
- Unity Student License

Schedule

	A	B	C	D
1	Estevez Gant Chart Table			
2	Task	Start	End	Duration
3	Decide on topic	1/24/24	1/31/24	7
4	Research & Discusions	2/1/24	2/14/24	13
5	Solidifying Gameplay Idea	2/15/24	2/22/24	7
6	Unity game creation	2/23/24	3/18/24	24
7	Polish Game	3/18/24	3/25/24	7
8	Questionnaire/Playtest	3/26/24	4/12/24	17
9	Itch.io website	4/13/24	4/30/24	17
10	Final Polish/Poster creation	5/1/24	5/14/24	13
11	Turn in	5/16/24	5/17/24	1

Budget

A	B	C
Budget		
Item	Estimate Amount	Total Spent
Macbook Air M2	\$1,200.00	\$1,306.50

Analysis

Conclusion

Websites Cited