

Trees of Life

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Abstract

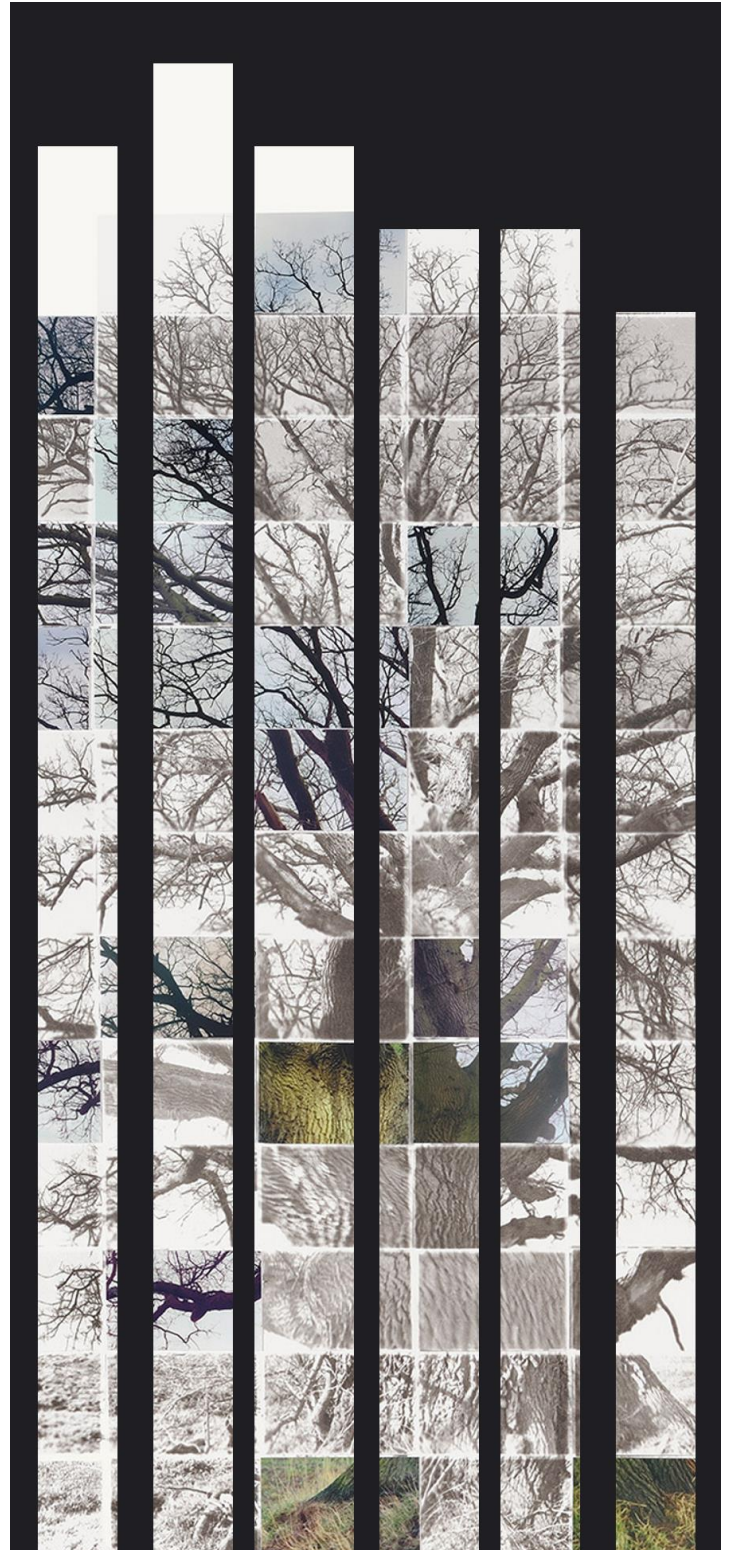
A neural network is a computer system modeled on the human brain and nervous system. Neural networks can be trained, rather than explicitly programmed, and excel in areas where the solution or feature detection is difficult to express in a traditional computer program [1].

Instead of solving problems, I want to develop a Neural Network that augments the artistic process, producing expressive visual content for the user. For this project, I decided to implement a Neural Network to generate images that come together and create a mosaic, which will be an abstract representation of the generated content.

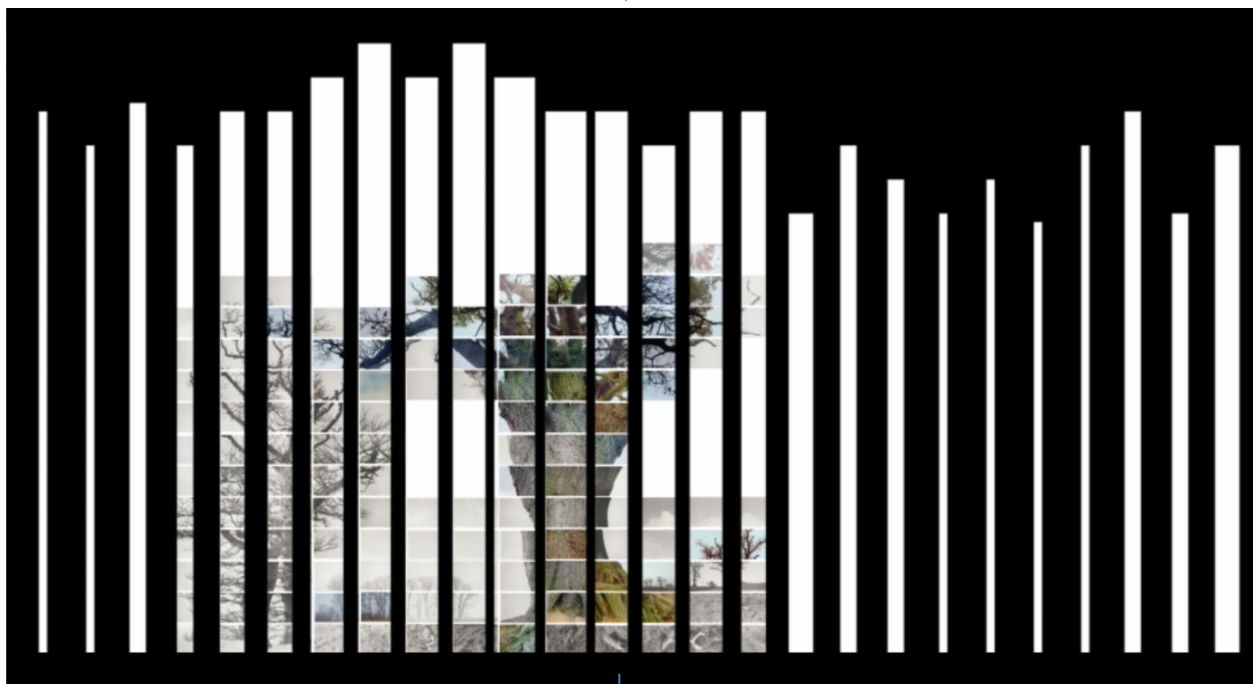
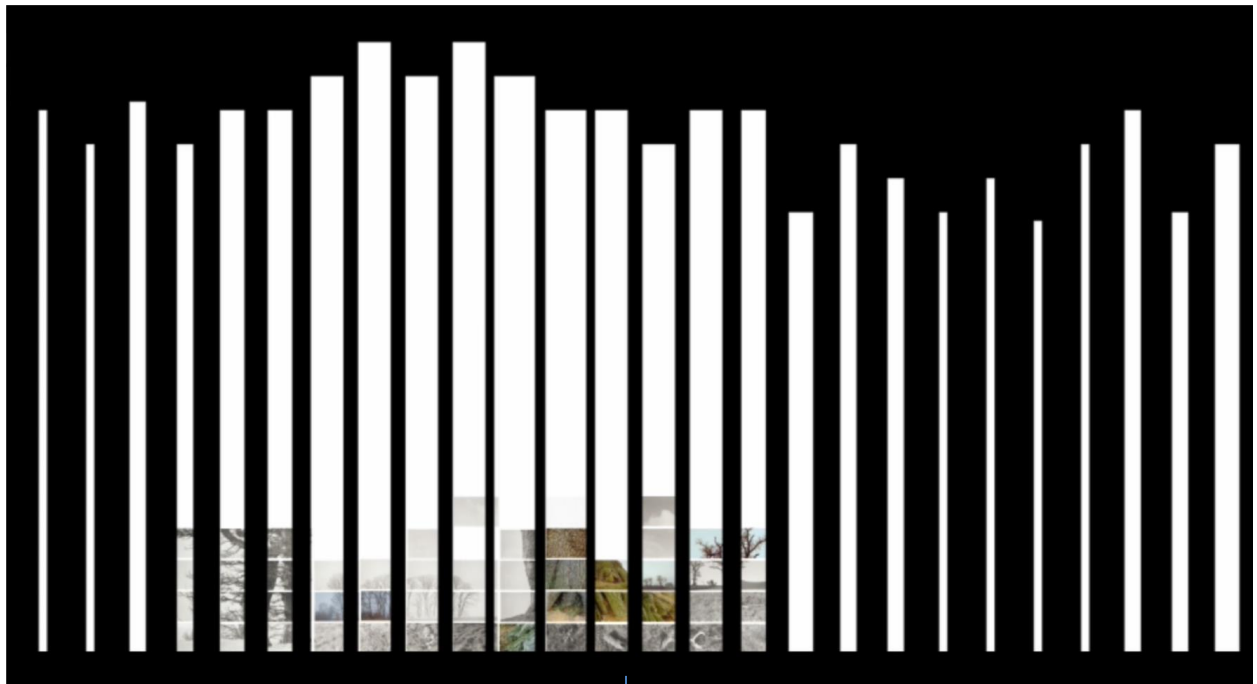
When viewing mosaics on our primary electronic devices, we usually just see an overview of the image and can't make out the fine details. When we zoom in, we can make out the details, but the rest of the context gets lost. The 150 Media Stream, a mosaic of displays, gives us an exclusive advantage; The massive size of the displays can frame the entire mosaic. This enables three levels of interaction. First, when users are close to the wall, they can see the individual details and emphasized textures. Then, when users move back halfway in the space, they can make out some details and some of the shapes and patterns being formed. Finally, when users are as far back as possible, they can't really recognize the details, but they can perceive the final representation that was formed. The wall engages users, having them move around the space to observe diverse perspectives.

The main content of the application will revolve around the nature covering Chicago. Primarily, trees and the prairies surrounding the city will be featured. The main reason for having nature be the visual subject of the application is because I want to combine elements that differ greatly from each other, but still share an underlying unique relationship. In this case, a neural network (an abstraction on a machine) and trees/prairies/vegetation (a natural occurrence on earth), are combined to lead an organic-like growth.

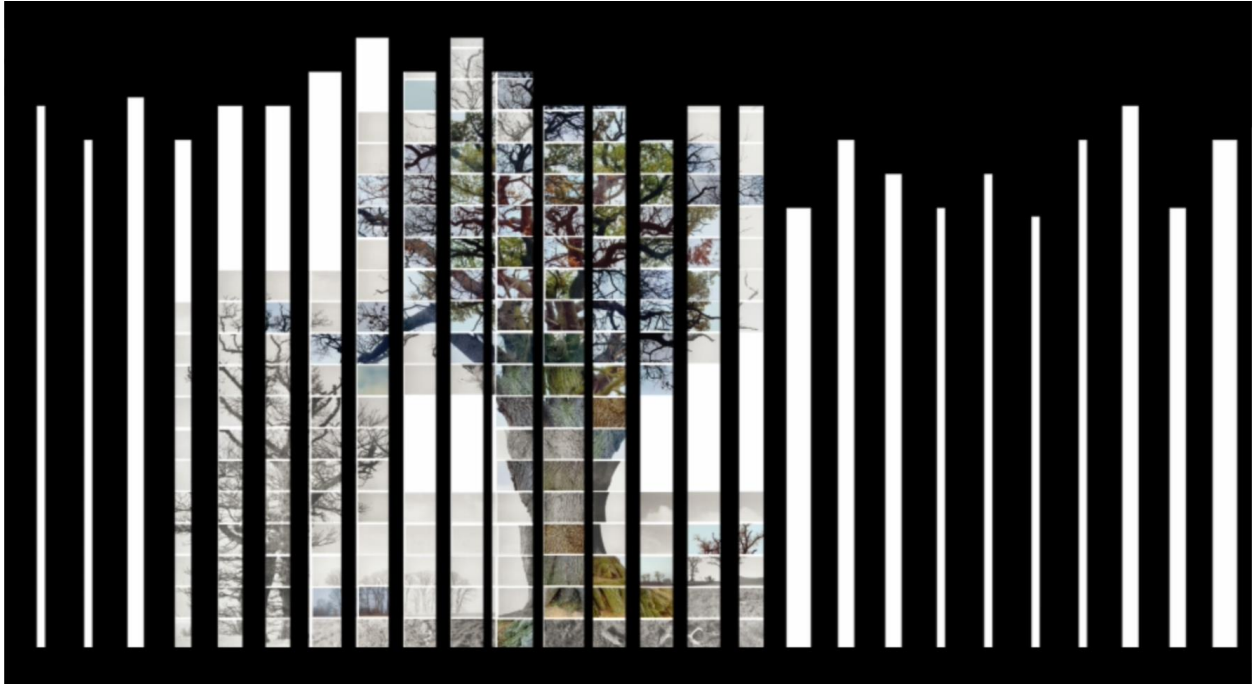
Design







[2]



Timeline

	M1 (June)			M2 (July)			M3 (August)		
Concept Revisions	x	x	x						
Final Prototype			x						
Initial Testing								x	x
Beta Version									
Software Development			x	x	x	x	x	x	x
Audio Design							x		
On-site Testing									
Revisions									
Final Opening									

	M4 (September)			M5 (October)			M6 (November)		
Concept Revisions									
Final Prototype									
Initial Testing									
Beta Version		x	x						
Software Development	x	x	x	x					
Audio Design			x						
On-site Testing				x			x		x
Revisions				x	x	x	x	x	x
Final Implementation									x

Budget*

*not very realistic, I wouldn't ask this much.

Item	Description	Est. Cost
Equipment	Access to DSLR cameras, lenses, etc.	N/A
Labor	Photoshoots	\$400
Transportation	Multiple photoshoot locations around Chicago	\$200
Engineering	Developing Neural Network application	\$5,000
Other	Possible collaboration with artists, photographers	N/A
		Total: \$4,600+

References

- [1] https://en.wikipedia.org/wiki/Artificial_neural_network
- [2] Noel Myles, <http://www.noelmyles.co.uk/>