

AI-Generated Self-Portraits

Time: 2019

Material: digital w/ programming

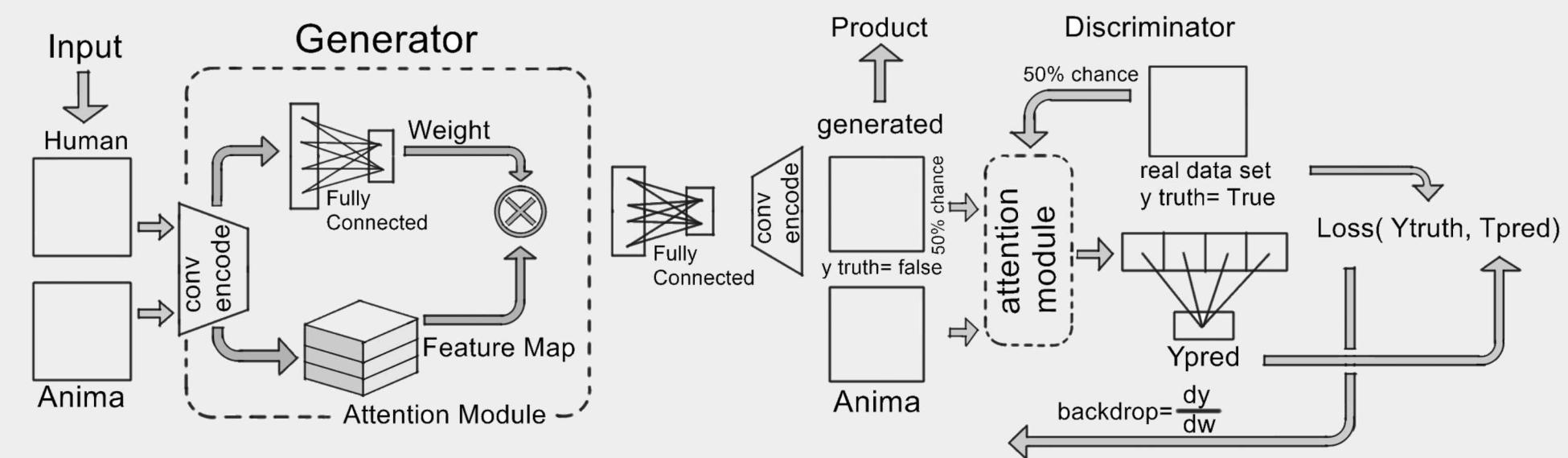
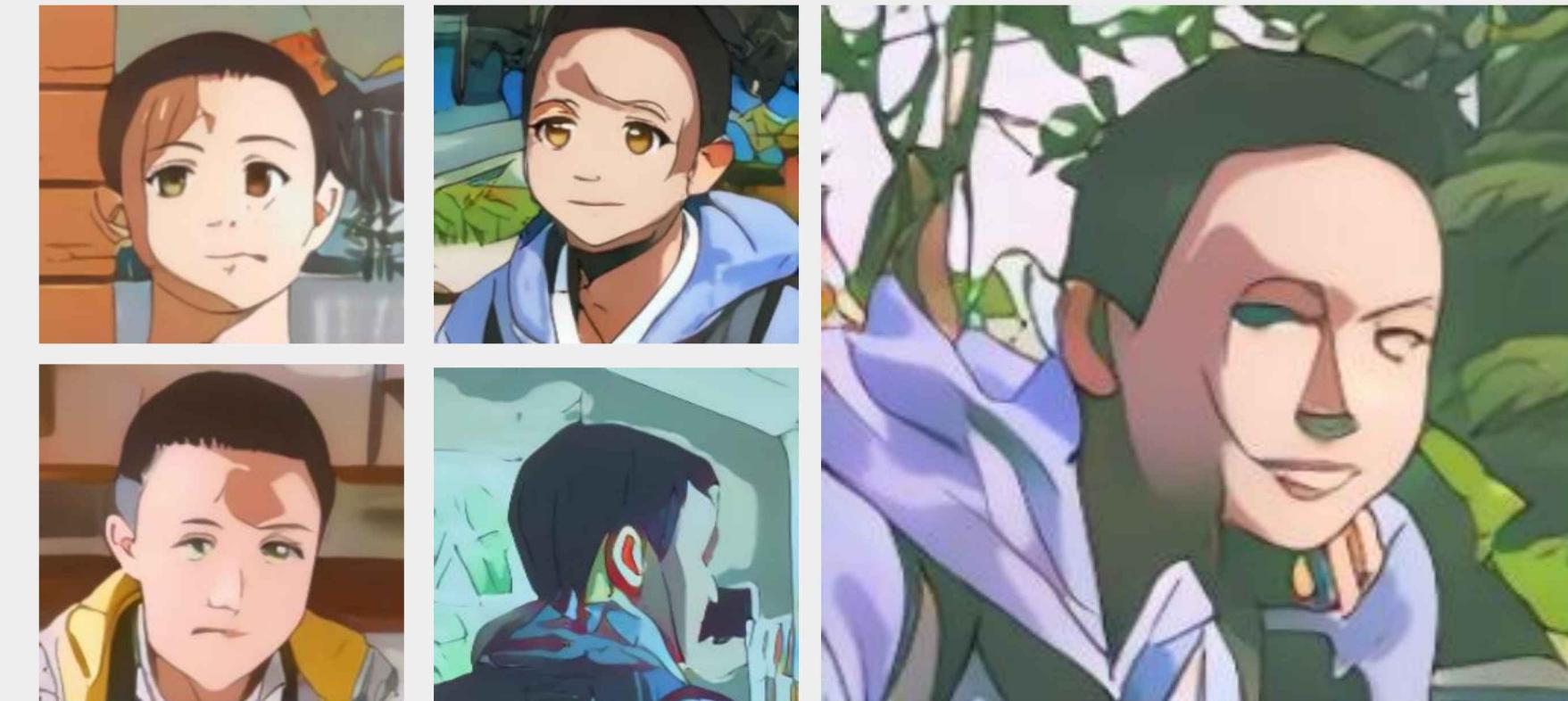
paper referenced: "UGATIT: Unsupervised Generative Attentional Networks with Adaptive Layer-Instance Normalization for Image-to-Image Translation" (2019)

dataset used:

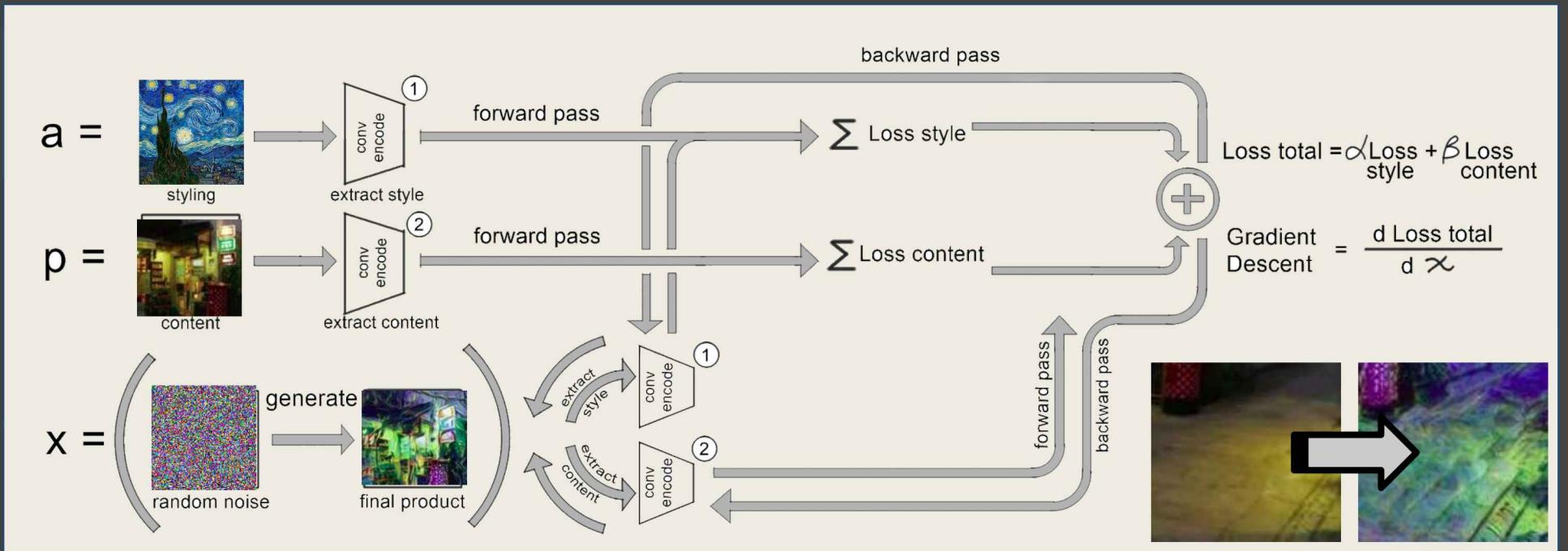
- animeface-character-dataset
- selfie-dataset

Different people have different perspective on things. This is literally how an Artificial Intelligence sees me.

I implemented methods in an unpublished paper in Computer Vision (CV) to train and deploy my neuronal network. The resulting images are generated by code. (training process shown on the network architecture diagrams)



network architecture: Generative Adversarial Network (GAN)



network_architecture: Convolutional Neural Networks

AI as My Brush: Starry Town

Time: 2019

Material: digital w/ programming

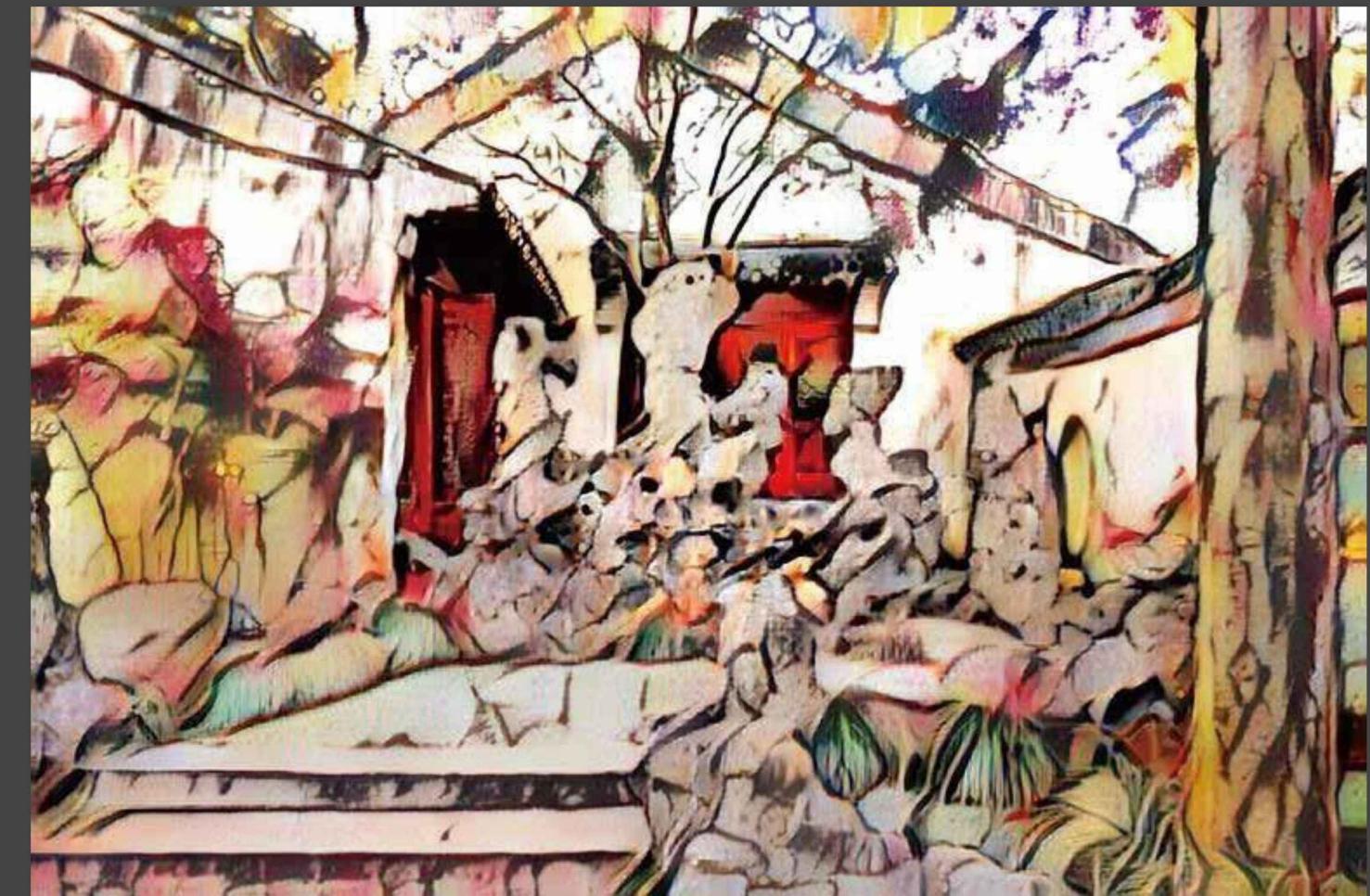
paper_referenced: Image Style Transfer Using Convolutional Neural Networks (CVPR 2016)

Walking in an old town under the sunset,
shops lit up into the bustle,
only with the stars still.

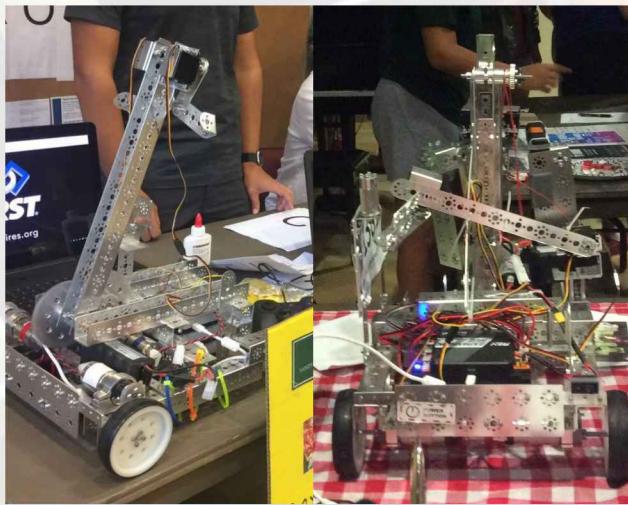




This is an old town: People who live outside want to get in, while people who live inside want to get out.



AI as My Brush: Water Township



Generation 1

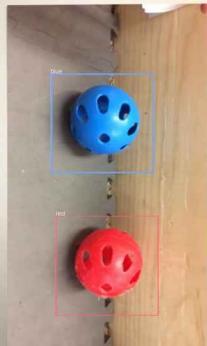
Generation 2

Generation 3

Object Detection

TensorFlowTest

LOAD PICTURES



BeestBot

Time: 2018-2019

Material: Steel, Motors, Servos, Rubber Bands, Sensors, 3D printed materials...

Function:

- This autonomous robot is capable of picking and transporting "gold" and "silver" minerals; lifting itself onto a "rocket"; and landing to the "moon".

Technology:

- I deployed machine learning for "minerals" detection
- Motor Gear Ratio
-





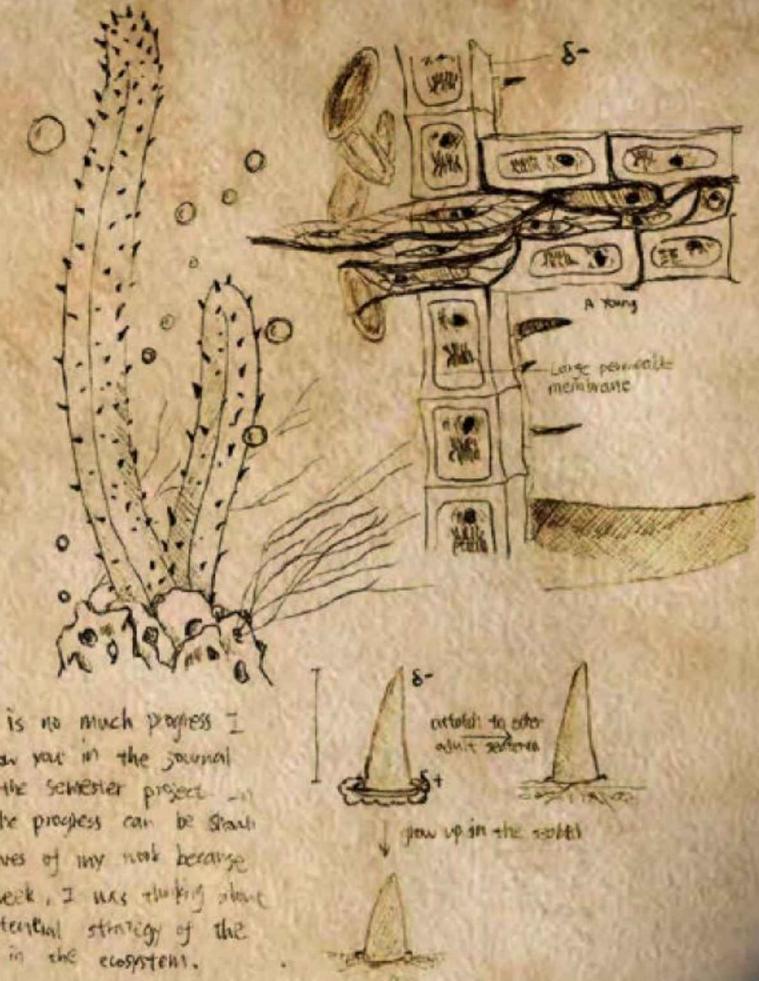
BeestBot Logo & Manuscripts

Time: 2018-2019

Material: 3D printed materials,
digital, silk



Sea tenta - Adult

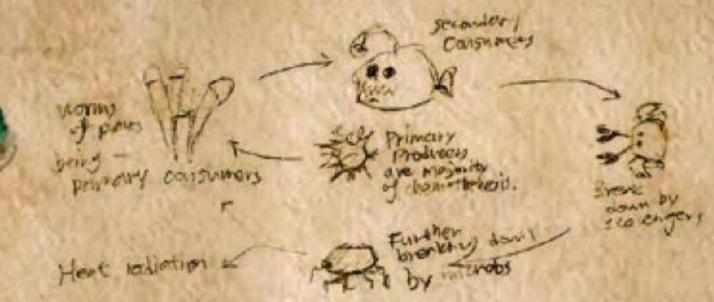


Silicon

Time: 2017 Material: Ink, Watercolor

This piece reflects my projection of life based on silicon. As lives on Earth are mostly based on carbon, silicon lives can only exist in **high pressure** environment because of the solid nature of silicon dioxide. Based on the chemical properties, I also predict that silicon lives move much slower since the rate of reaction with oxygen is slow. These chemical properties can hugely affect the features and lifestyle of organisms as my manuscripts show. It is fascinating how hydrogens can become humans given enough time.

Carbon Cycle of Species



There was a few drawings I have some cool mechanics, but you see...

For example, here stone species can change the environment where they exist. There are various interactions between species:

- predation
- symbiosis
 - commensalism
 - mutualism

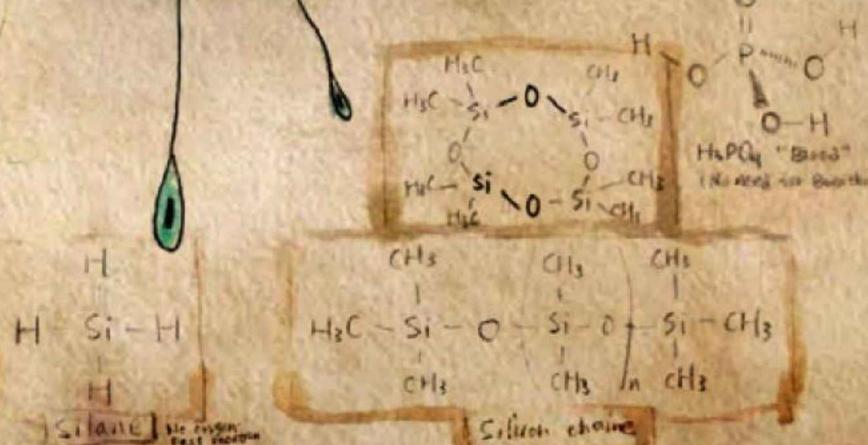
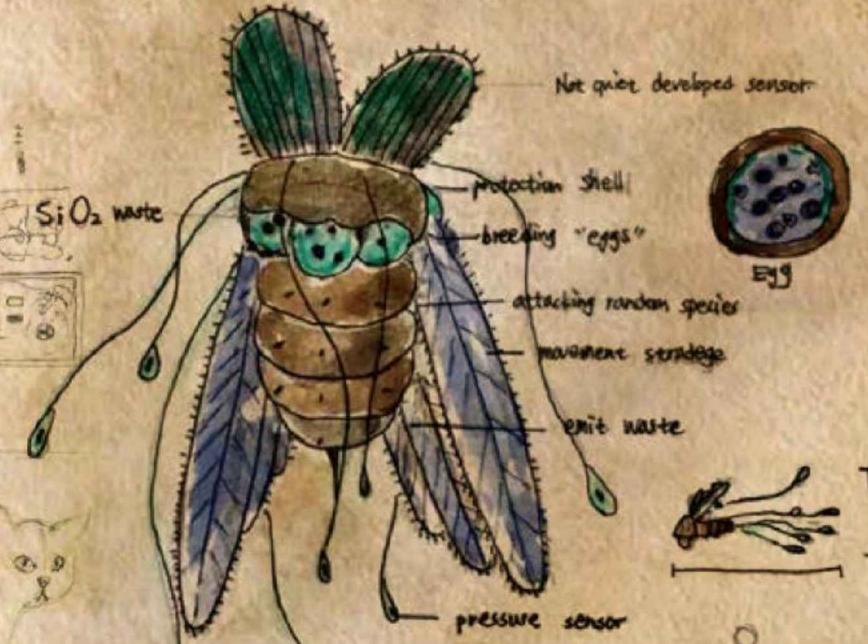
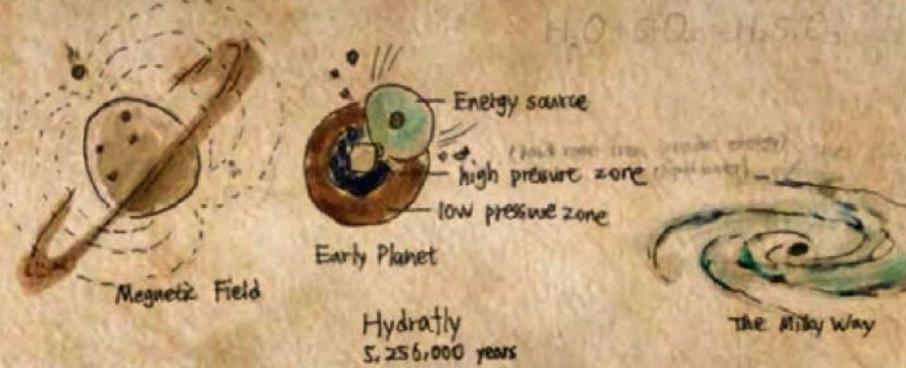
This method of predation can be various, too including physical attack and chemical attack.

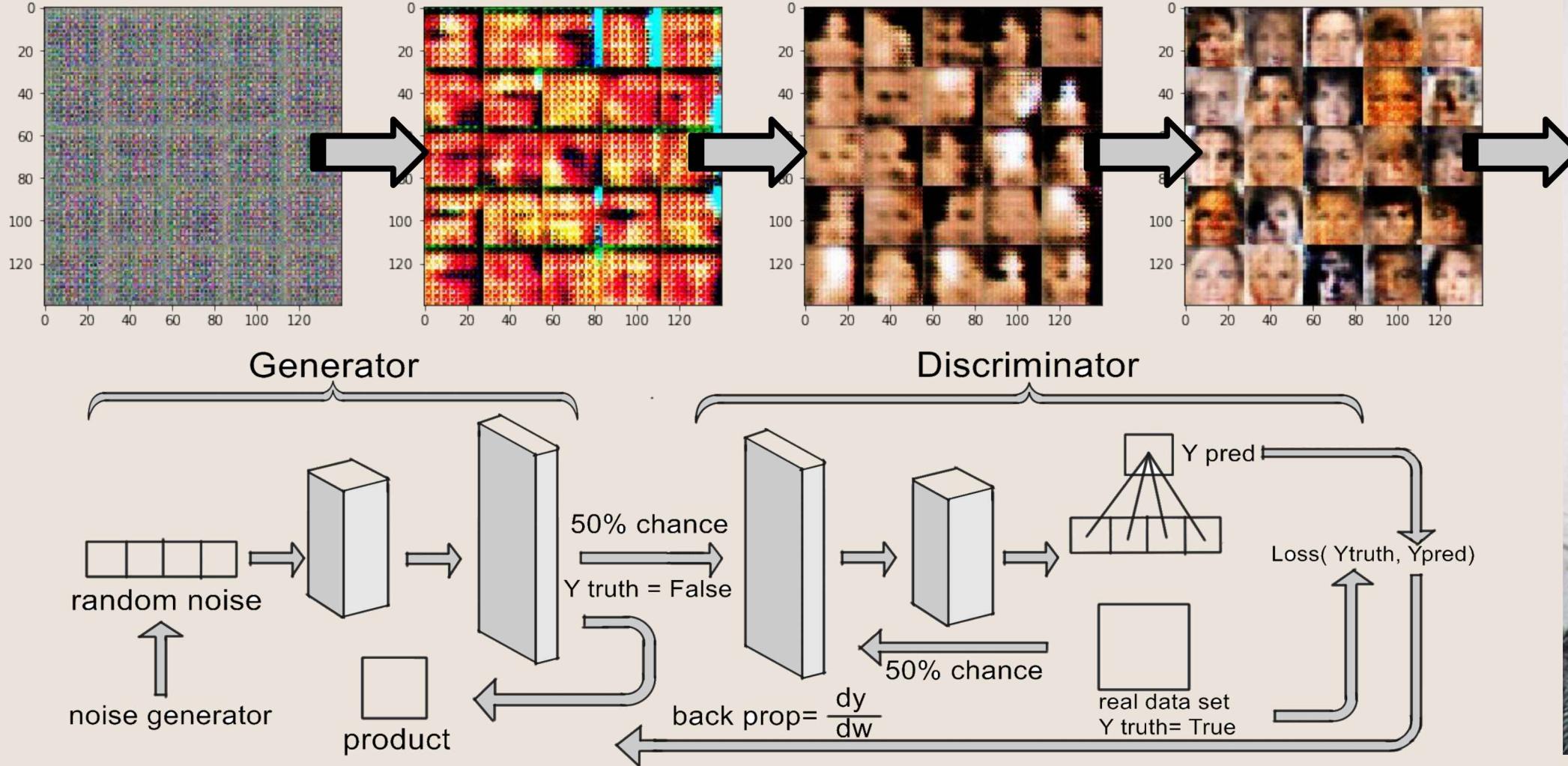


Silicon

Time: 2017 Material: Ink, Watercolor

Si





#² Fake News (by AI)

Time: 2019

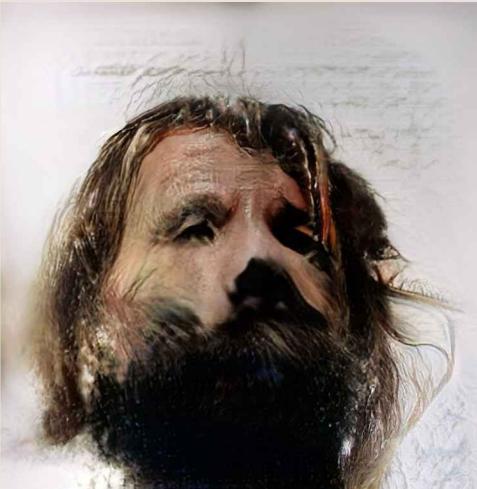
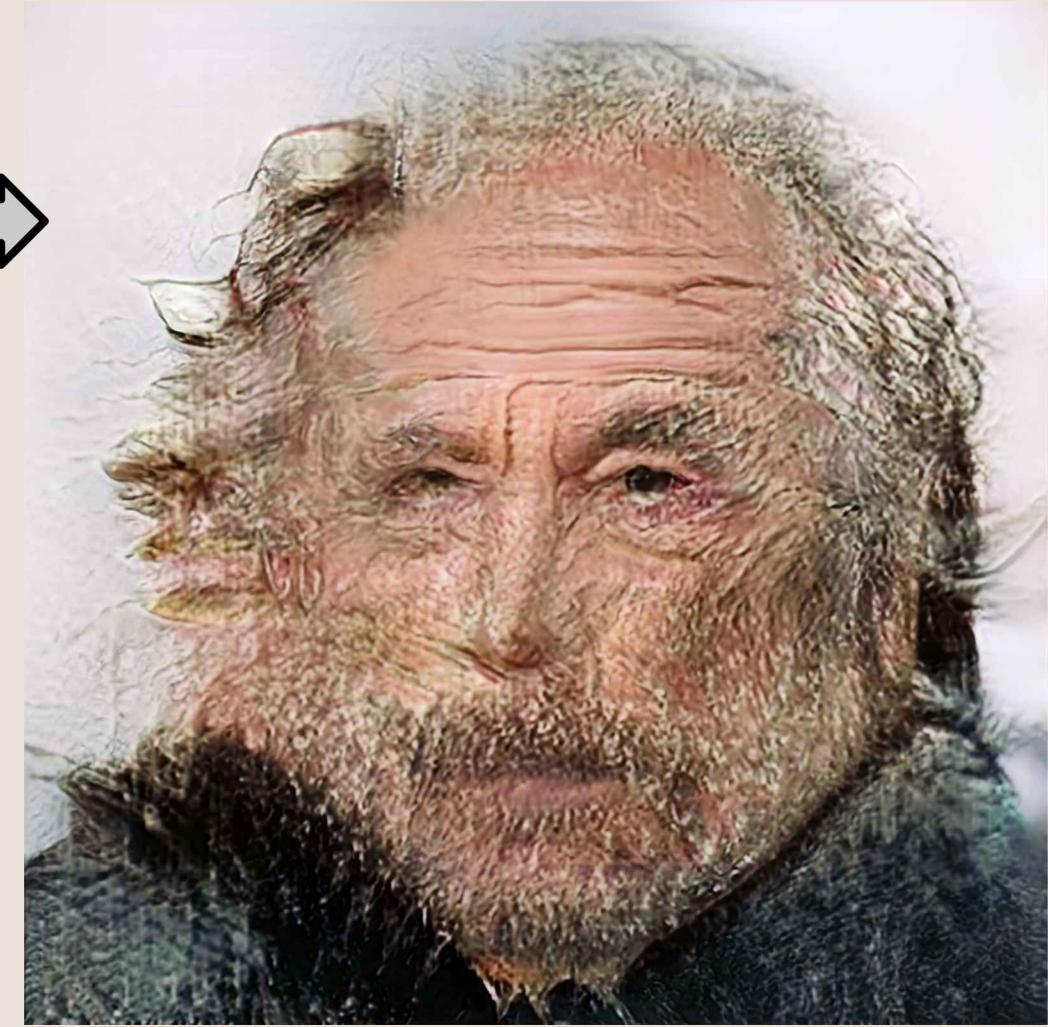
Material: digital

paper_referenced: "Generative
Adversarial Networks" (2016)

dataset_used: celebA

These paintings done by my AI algorithms was generated completely from random noises inputs, which means that these people do not exist on earth.

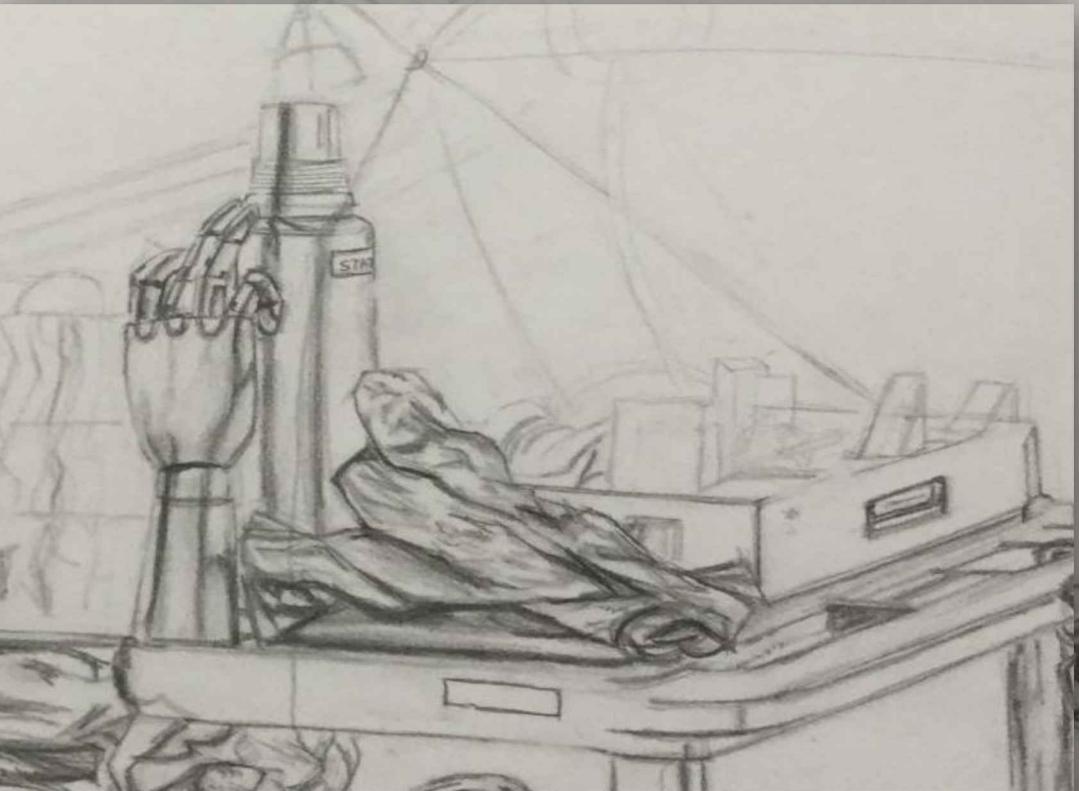
I used this piece to show my classmates about the power of AI and how the growing technology can create problems like "DeepFake crisis" in our society.



Line-only Drawings

Time: 2019

Material: pencil



Species of Flowers

Time: 2017

Material: 100% nature, (not from concentration)

Collecting flowers in the spring was my past hobby to enjoy and study the nature. I identified and classified 80+ different species of flowers in Maryland. Now as I walk in the forest in the spring, my memories of the past flood out from my heart.





Hunger Is Not a Game

Time: 2018

Material: digital

Length: 1 min

tools-used: Adobe AfterEffects, Adobe Illustrator

I animated this Public Service Announcement about how the growing world population and unbalanced food distribution could potentially cause hunger in certain countries. Our team proposed two solutions: creating food bank and promote women's education.

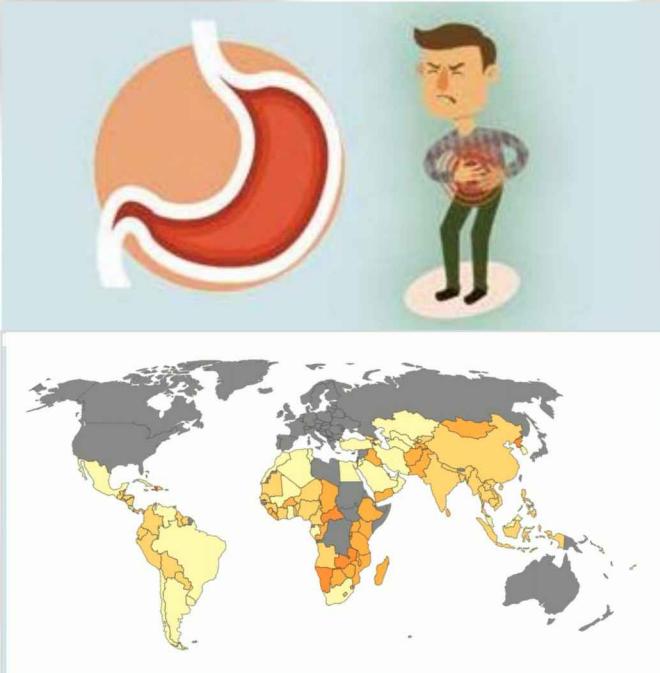


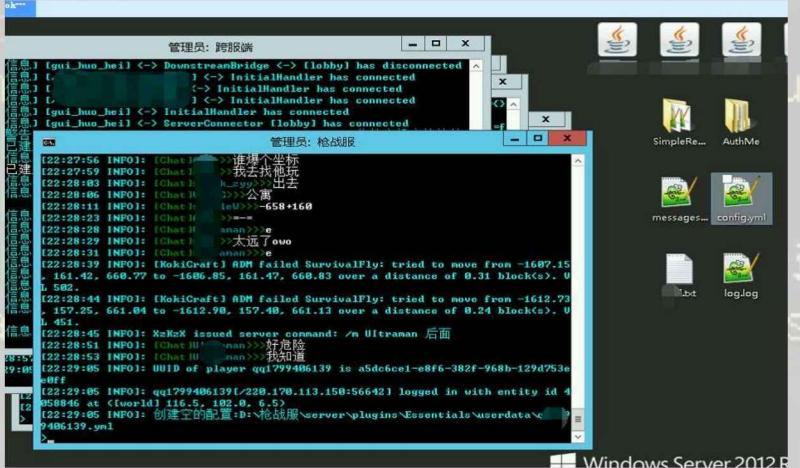
World hunger again on the rise, driven by conflict and climate change, new UN report says

815 million people now hungry – Millions of children at risk from malnutrition

News release

15 SEPTEMBER 2017 | ROME – After steadily declining for over a decade, global hunger is on the rise again, affecting 815 million people in 2016, or 11 per cent of the





KokiCraft Game Server

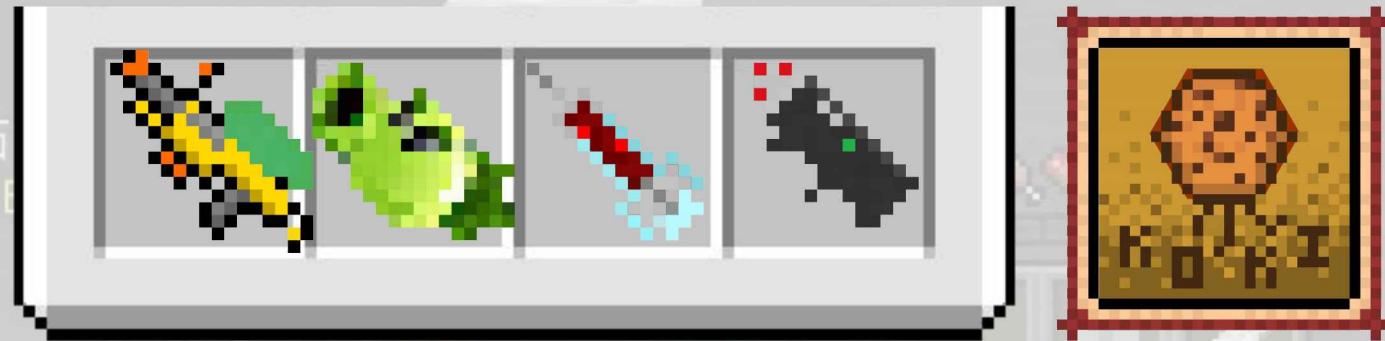
(Game Design, Pixel Art, Interface Design)

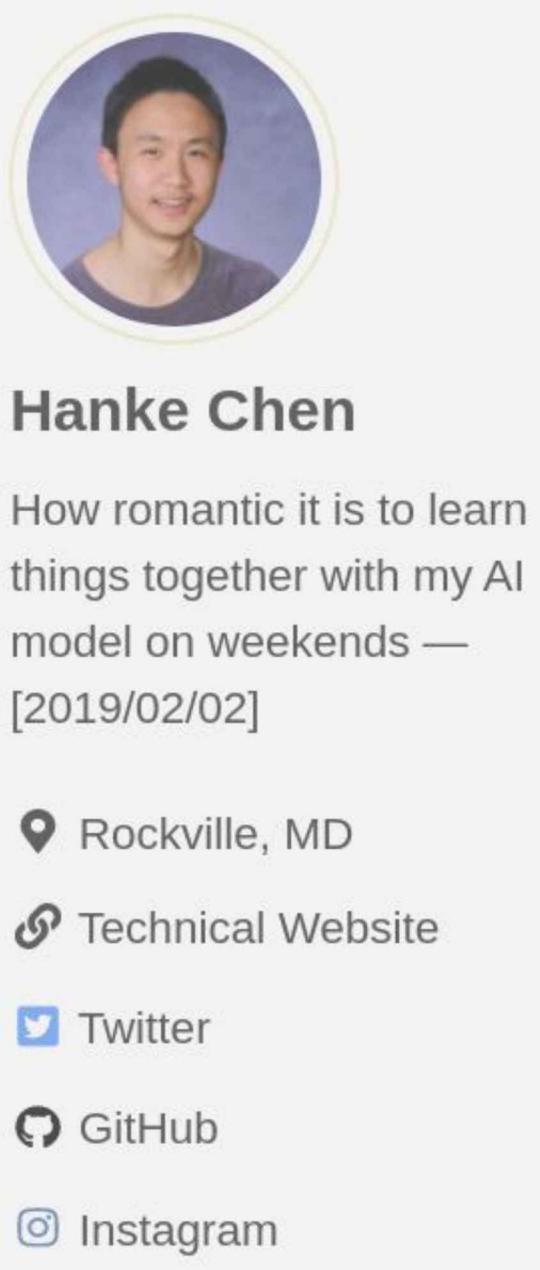
Time: 2019

Material: digital w/ programming, PhotoShop

At 14, I created "KokiCraft", a game serve that transformed Minecraft into a Grand Theft Auto-esque game with more player involvement and elaborate storyline through programming.

Here are some examples of my Icon, User Interface, and Game Mechanic Design as well as server's backend.





Hanke Chen

How romantic it is to learn things together with my AI model on weekends — [2019/02/02]

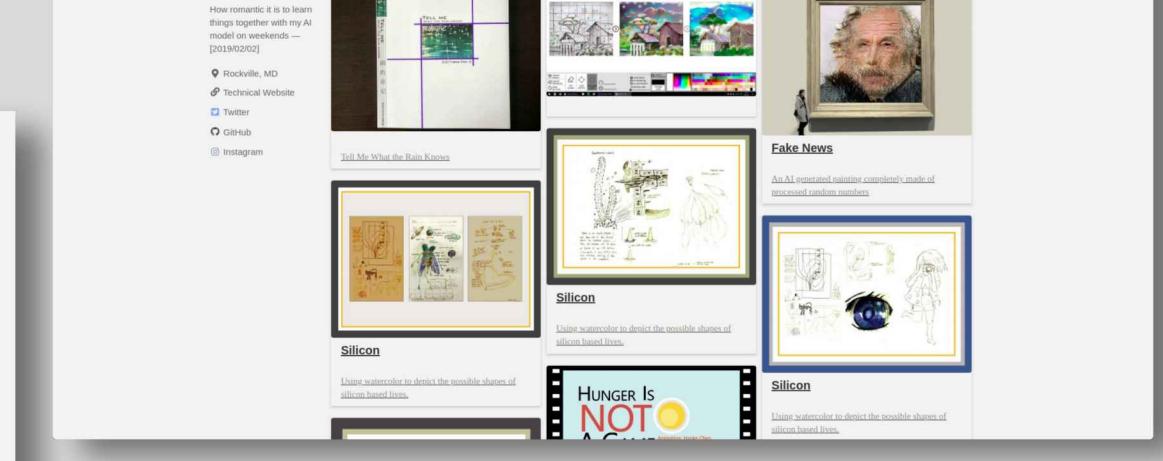
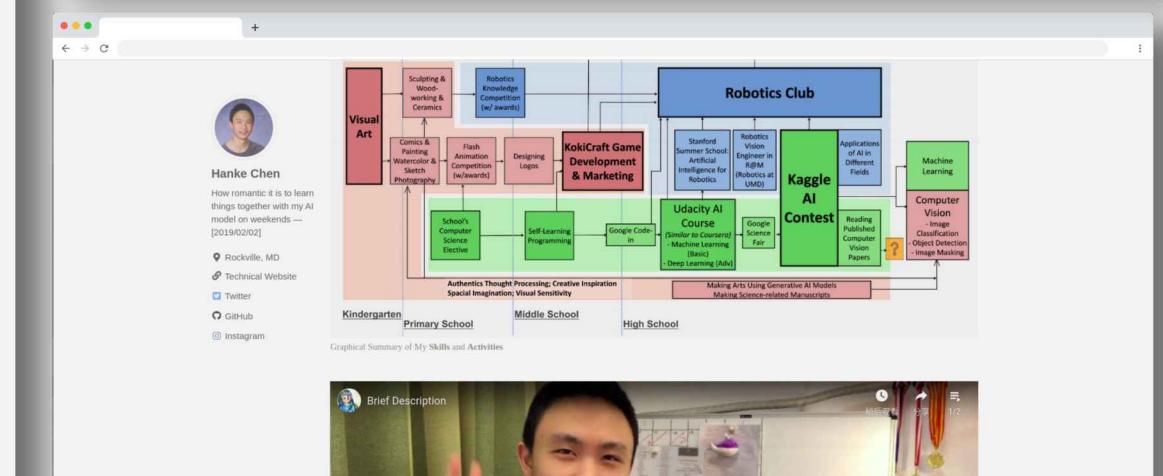
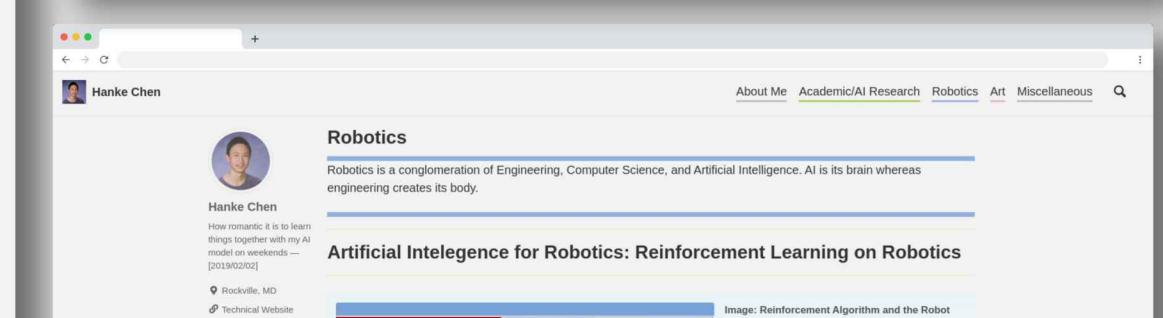
Rockville, MD

Technical Website

Twitter

GitHub

Instagram

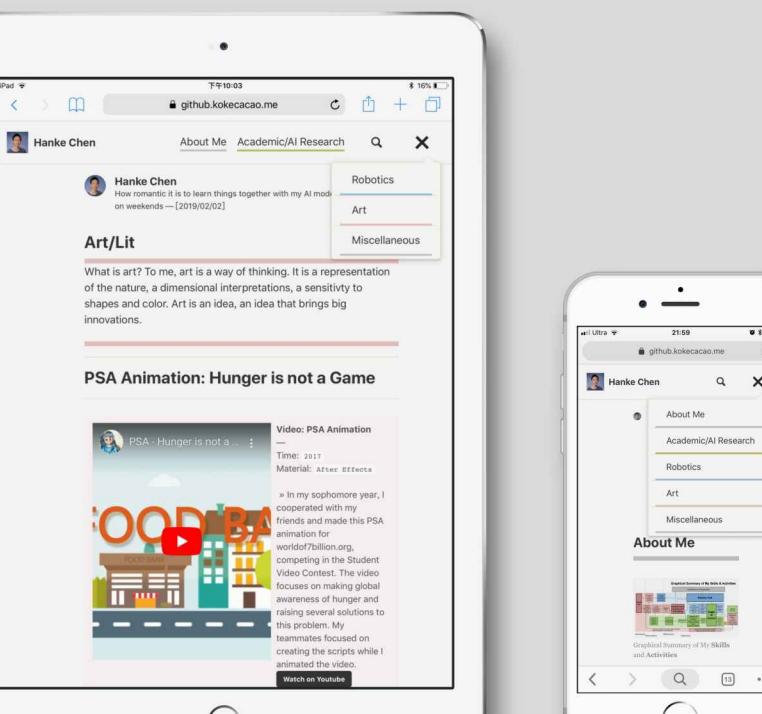
About Me Academic/AI Research **Robotics** Art Miscellaneous Q

Webpage Design

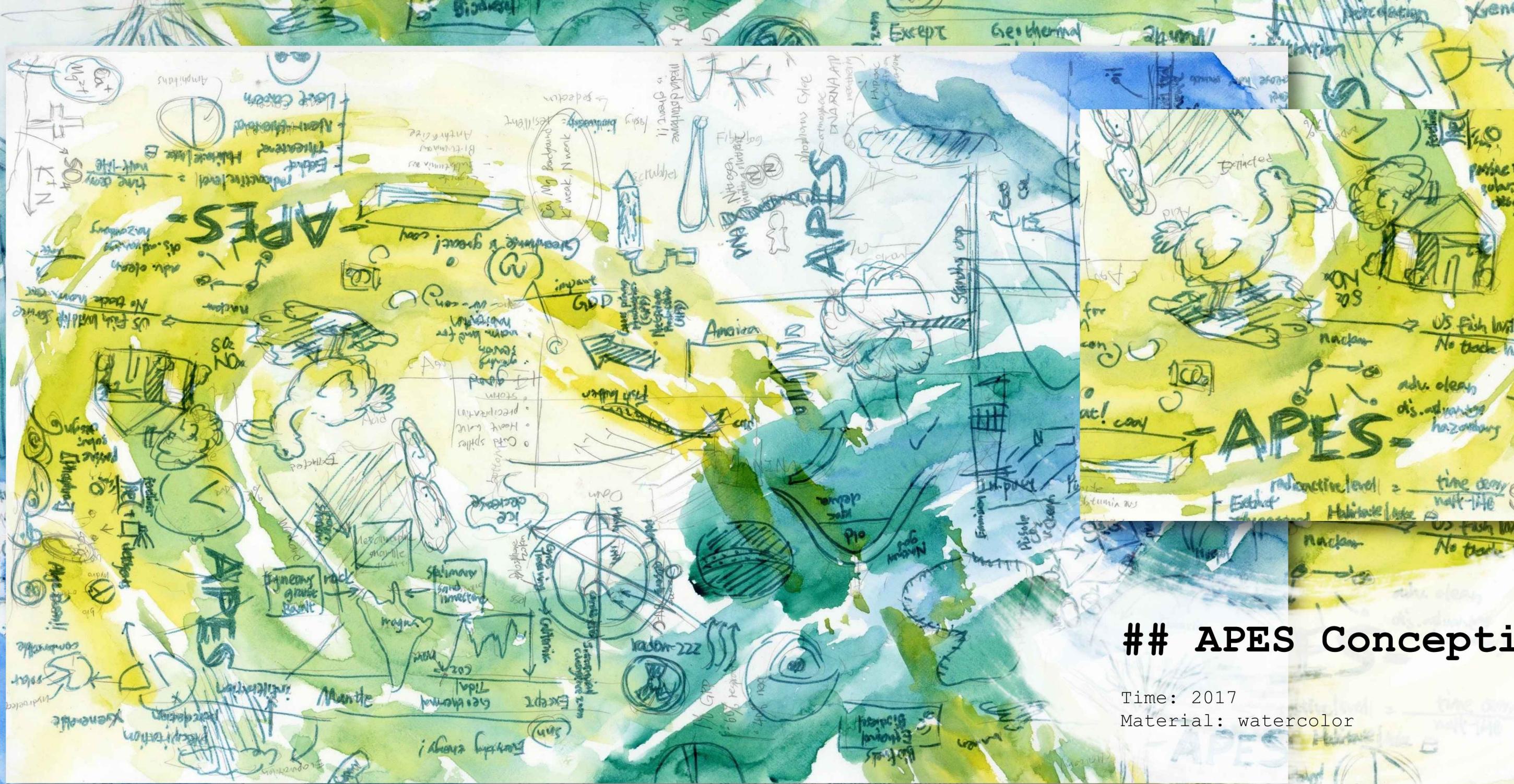
Time: 2018
Material: digital w/ programming

tools-used: ruby, html, css, jekyll
link: <https://chenhanke.me>

This general web page coded by myself showcases every aspect of me from AI Research, Robotics, to Art and Game Designs.



Responsive UI Design: automatic resize on phones



APES Conception

Time: 2017

Material: watercolor

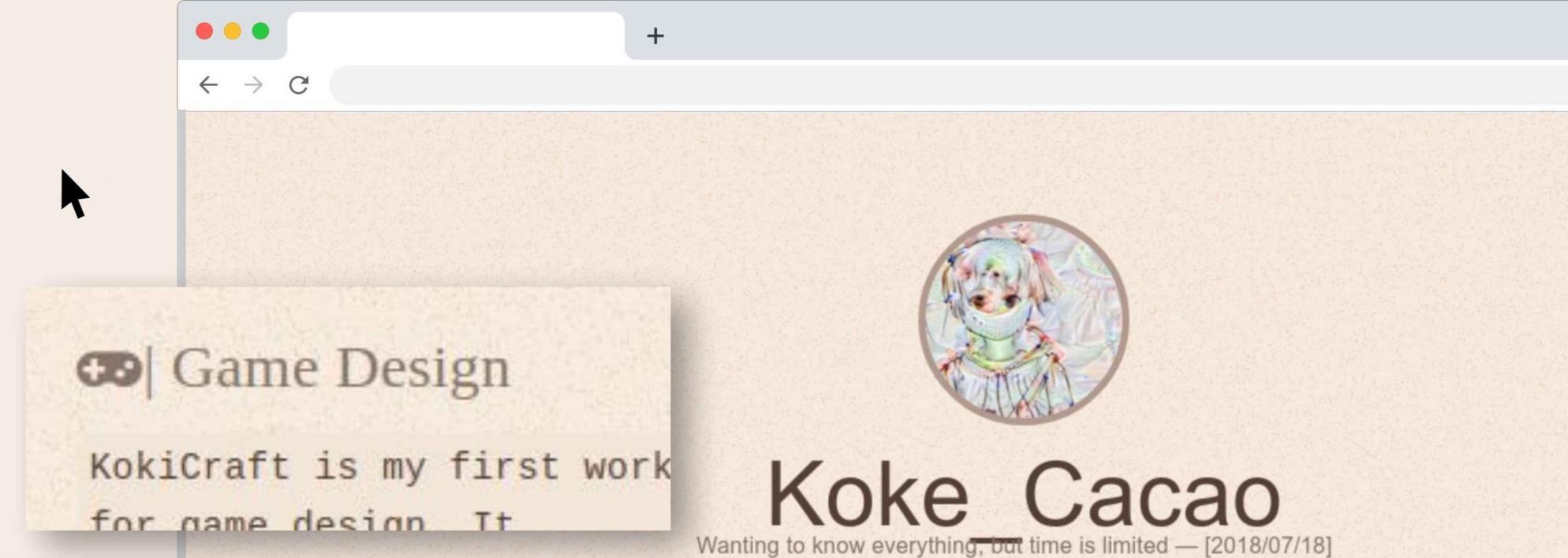
Brownie UI: A Personal Tech-Webpage

Time: 2017-now

Material: html, css

link: <https://www.kokecacao.me>

This geek-style minimalistic design showcases my personal values toward lives to my friends. The use of line, shape, hue, and saturation gives the viewer a sense of safety.



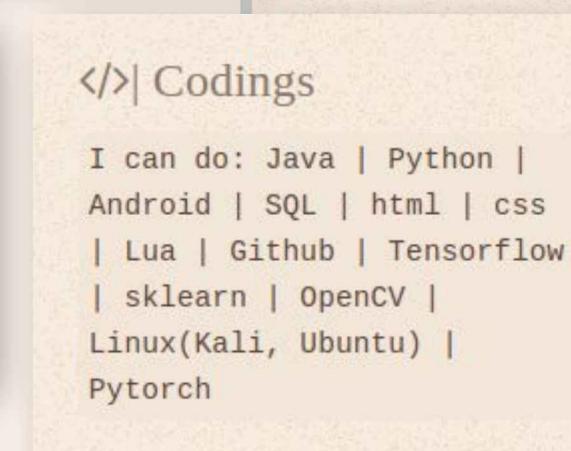
0x05 Global Deployment — Sounds big, but it means social-network

[Github] [Bilibili] [Instagram]
[Kaggle] [Twitter]
[Zhihu] [WeChat]
[Youtube] [Email]

👁| Computer Vision

Currently taking Udacity's Deep Learning for 2nd year.
Doing some Kaggle competitions. Studying CNN
...

(details shown)



Other Languages: [简体中文]; [English]; [繁體中文]; [日本語]; (WARNING: English is the most up-to-date version.)

My other websites: [RoboticsClub]; [ArtClub]; [Blog]; [Website];

MyProperties: Quantum delay experiment's strange bug | Extremely Introvert, but talkative with people who share same interests with me | Love Science | A Nerd | Tech Person who love watching anime | Almost never play video games | Yan Text | Sublime Text is the world-best-looking text editor | Vim (still learning the useless Vim) | Pytorch is the best framework in ML | Using Ubuntu as desktop | Occam's razor is the fundamental theory of SCIENCE!

This MeaningOfLife.java file is where all my power came from:

```
private boolean stillAlive = true;  
private int lastSecond = 1928891298174;  
private void live(Energy e) {  
    while(stillAlive) {  
        if ((this.getDream != null) && (lastSecond > 0)) {  
            this.getDream().createArtificialIdiot();  
        }  
        lastSecond++;  
    }  
}
```



Class Logo Design

Time: 2016

Material: digital

My design of the logo for my class includes the meaning of "growth", "love", and "peace". The class adopted my design onto our class t-shirt.





The Night

Time: 2017

Material: Rubber print board with black paint



The Music of Natural Lines

Time: 2014-now

Material: photography in Suzhou, Guilin, Japan

