



# Capstone Design

YOU & AI

김영민, 유의선, 신우탁, 김영훈

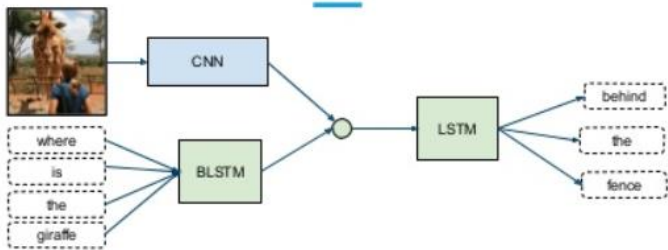
# A 개발 동기



그림 작가들에게 편의를 제공



그림을 처음 그리는 아이들에게 도움



최근 Multimodal에 대한 연구 증가

# AI 개발 목표

입력

출력

계단을 올라가는 남자



# AI 개발 범위

01

## 알고리즘 개발 및 참조

Top-tier Paper 참고 및 구현  
+  
알고리즘 튜닝

02

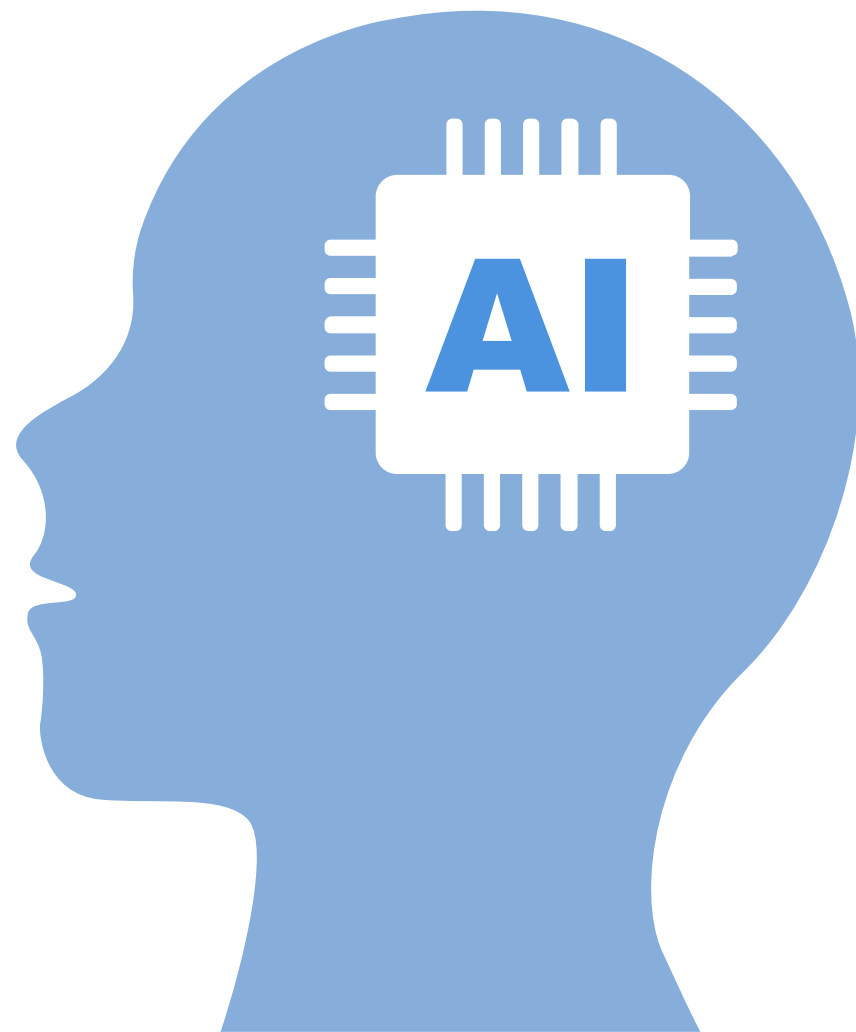
## 앱 제작 + DB 구축

앱의 전체적인 UI와 시스템 제작

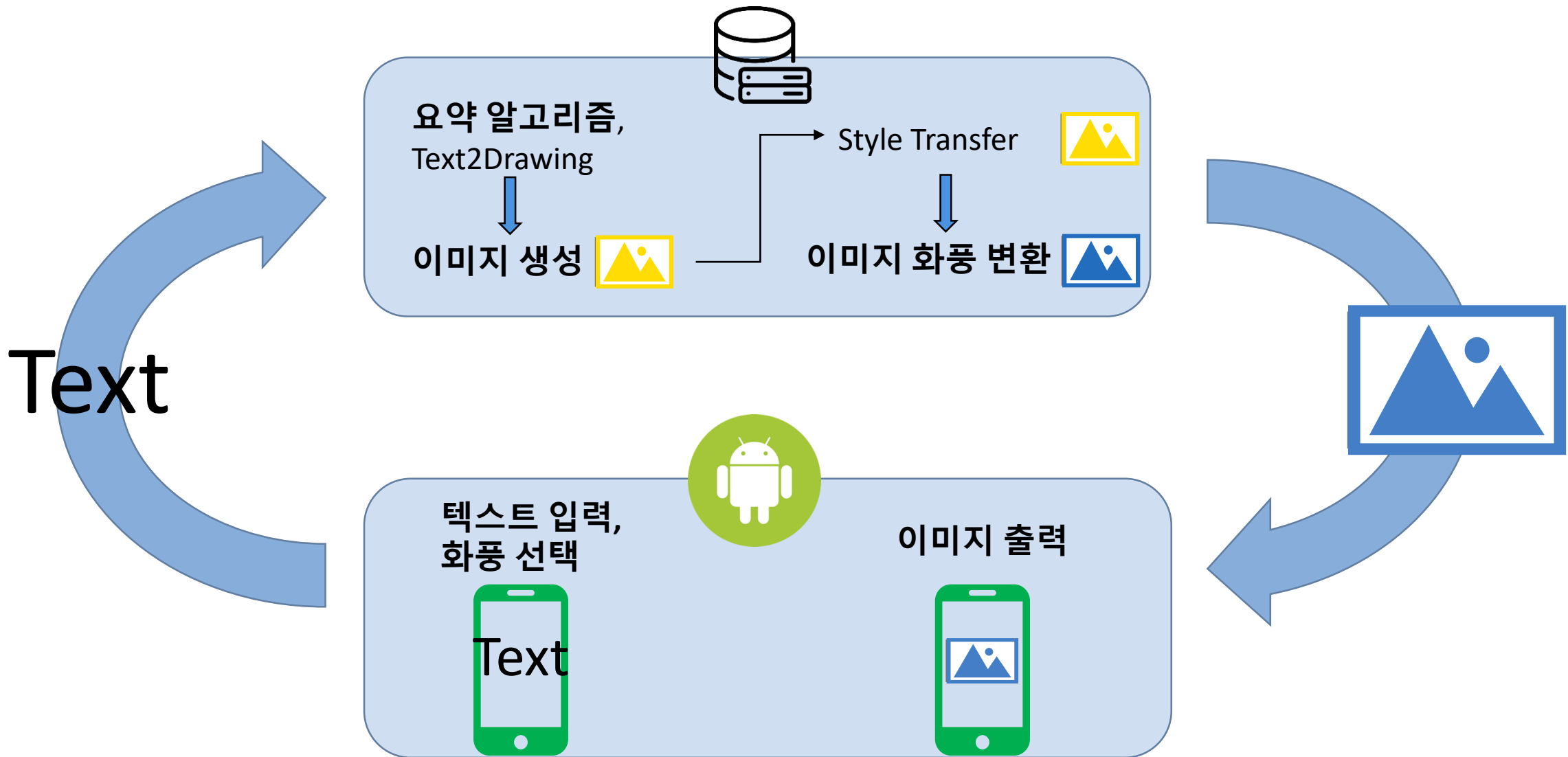
03

## 시스템 유지보수

버전 관리 & 사용자 피드백 수용

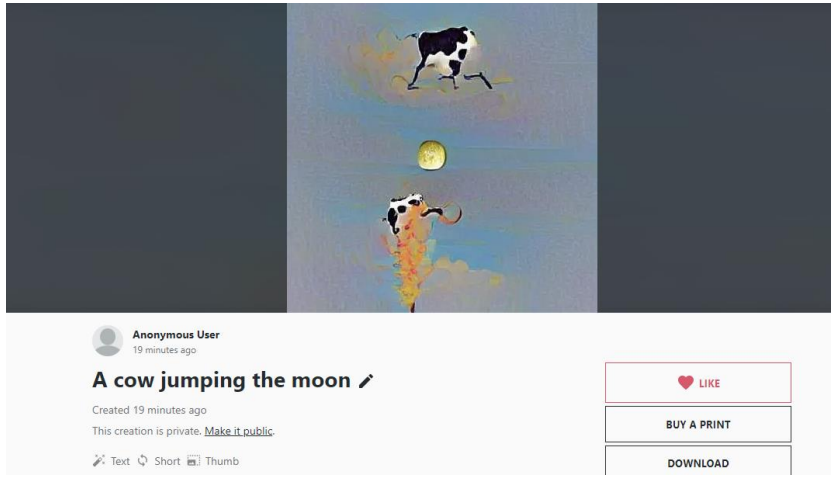


# A 프로그래밍 구성 및 사용 시나리오



# A 선행 제품

## 선행 제품



Night Café (<https://creator.nightcafe.studio/>)

an armchair in the shape of an avocado. . . .

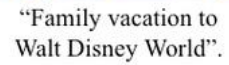
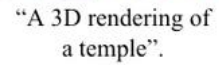
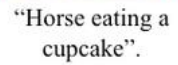
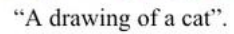


Edit prompt or view more images +

OpenAI DALL-E (<https://openai.com/blog/dall-e/>)



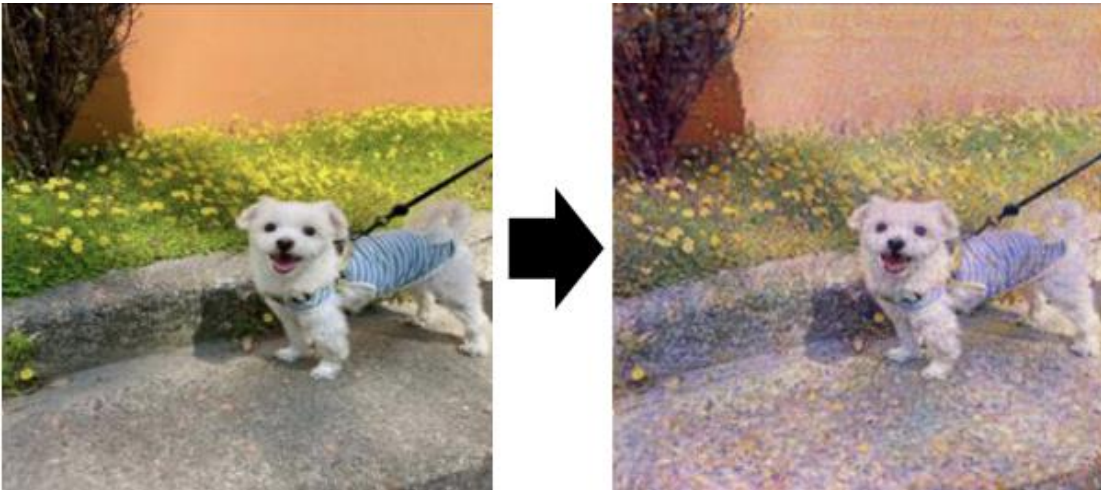
# Text2Drawing



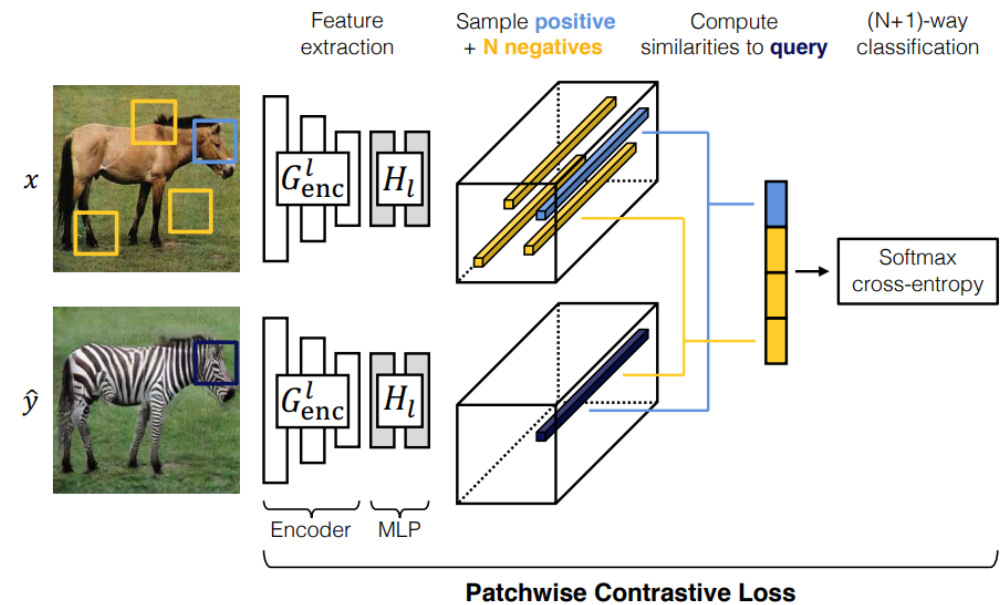
## ClipDraw

## Clip

# Style Transfer



CycleGAN



CUT



## 문제점

1. 인공지능 **기술 난이도** ↑ / GPU 제한 문제
2. 학습된 **모델과 앱 간의 연동** 시 오류 가능성 ↑

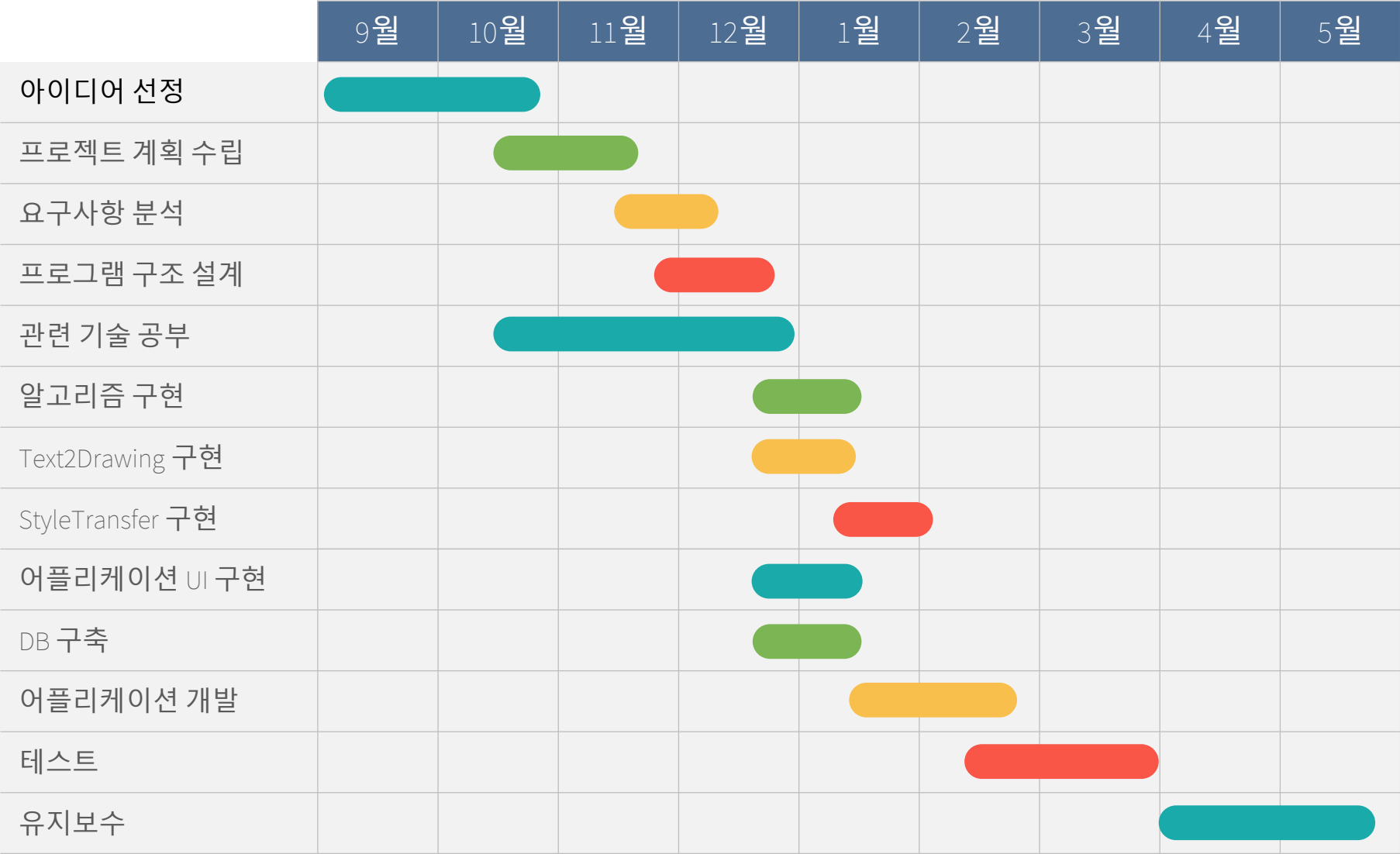
## 해결 방안

1. 학습된 모델 가져와 **응용**
2. **Firebase**를 **이용**한 빠른 App 개발로 Debugging 시간 확보

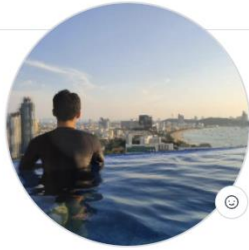
A



# 개발 일정



# 역할 분담



팀장/김영민

- Text2Drawing
- Style Transfer 구현
- AI 개발



팀원/신우탁

- 자연어알고리즘 구현
- AI 개발



팀원/유의선

- App UI 개발
- App 개발



팀원/김영훈

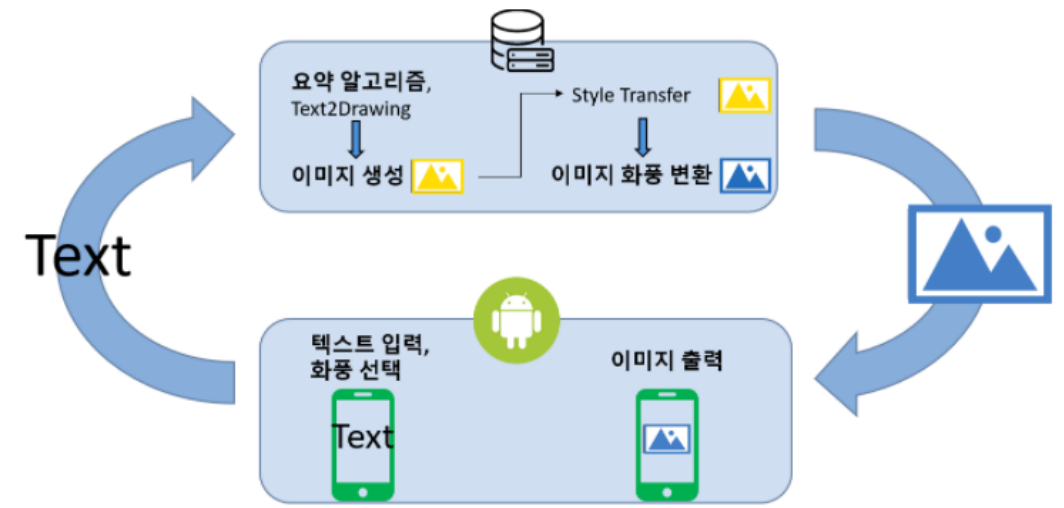
- DB 구축
- App 개발

## Text2Drawing-Service

Incheon National University - Computer Science Capstone Design(Graduation product)

You & AI

We make an application that generates picture through text. In addition, not only one sentence but also several sentences are summarized to create a picture that fits the atmosphere of the text. Finally, the created picture is converted into the style of the artist you want, and recommends according to the user



### Member(Team : You & AI)



김영민



유의선



신우탁



김영훈



<https://github.com/winston1214/Text2Drawing-Service>



Thank You