# Suyeong An

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https://godtn0.github.io

# Education

Korea University

Seoul, Republic of Korea

Mar. 2017 - Present

 Bachelor of Science in Computer Science and Engineering Major GPA: 4.47/4.5, Cumulative GPA: 4.31/4.5

- Relevant coursework: Linear Algebra, Statistics and Probability, Basic Statistics, Discrete Mathematics, Probability and Random Process, Engineering Mathematics, Operating System, Theory of Computation, Data Structure, Algorithms, Data Science, Computer Architecture, Artificial Intelligence, Machine Learning, Deep Learning.
- o (MOOC) Reinforcement Learning, Deep Learning(Computer Vision);

# Experience

CVLAB, Korea University

Seoul, Republic of Korea

Dec. 2020 – Present

- Undergraduate Researcher (Advisor: Prof. Seungryong Kim)
  Research text-guided(multi-modal) image to image translation
  - Extracting visual and text representation by the contrastive learning way and modify the image to fit the given text.

### Sycros - Alternative Military Service

Seoul, Republic of Korea

Deep Learning Researching and Engineering for Time Series Dataset

Sep. 2020 – Present

- Research computer resources, like CPU Usage, Memory Usage, Packet transfer amount, forecasting using deep learning for time series dataset.
  - Researching time series forecasting and anomaly detection to service monitoring solution.
  - Using Tensorflow and pandas, implement and enhance generally used model based LSTM, Autoencoder and Transformer to forecast and detect abnormal data.
- Perform fundamental of statistics and deep learning training session to employee and employer in Sycros.

#### VoyagerX - Internship

Seoul, Republic of Korea

Software Engineer with Video Processing

Mar. 2020 - Aug. 2020

- o Implement video editor with deep learning for video
  - Using React.js and Tensorflow.js, researching and engineering deep learning model to detect acne and to extract landmark from human face in video.

## POG Korea - Developer

Seoul, Republic of Korea

Jan. 2019 – Sep. 2019

- Software Engineer with Video Processing
- $\circ\,$  Implement parking assistance service with video processing
  - Using classical methods and deep learning of computer vision to segment the car and parking slot using C++(OpenCV) and python(OpenCV, Tensorflow).

### Artificial Intelligence Lab, Korea University

Seoul, Republic of Korea

Undergraduate Researcher (Advisor: Prof. Dongsuk Yook)

Dec. 2018 - Mar. 2019

• Resolving pipelined back-propagation problem

#### Microsoft Student Partner

Seoul, Republic of Korea

Announcing Microsoft's Azure Service

Aug. 2017 – Dec. 2018

• Announcing Azure Machine Learning Studio

# **Projects**

• Text-Guided Image to Image Translation [code]

Jan. 2021 - Apr. 2021

- Extracting visual and text representation by the contrastive learning way and modify the image to fit the given text.
- Computer Resources Forecasting

Sep. 2020 - Present

- Researching computer resources forecasting, CPU Usage, Memory Usage, Packet In/Out amount, etc, using statistics models and deep learning models like LSTM and Transformer based model.
- Question Answering Network for Physical Reasoning [paper]

Oct. 2019 - Dec. 2019

- Combined DQN with question & answering module to make agent understand physical concepts.
- Voice Data Analysis Using DNN and Product Recommendation System

Mar. 2019 - Jun. 2019

- Analysis the age and gender information of speaker using deep neural networks.
- Recommend product with maximizing profit using history of purchase.
- Speech Recognition Using Baum-Welch Algorithm with GMM [code]

Sep. 2018 - Nov. 2018

 Implement number speech recognition using Vaum-Welch algorithm and Viterbi algorithm with Gaussian Mixture Model.