

Suyeong An

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<https://godtn0.github.io>

Interests

- Deep Learning, Computer Vision, Reinforcement Learning, Time-Series Analysis, Multi-modal Learning
 - Using reinforcement regard deep learning model of any domain to agent such as computer vision, time series model and multi-modal learning.
 - Extracting representation from co-embedding space of image and text using Transformer.
 - Image to image translation and image synthesis with multi modal conditions such as text(natural language) and landmark image.
 - Using deep learning to make agent understand real world.
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Education

- **Korea University** Seoul, Republic of Korea
 - Bachelor of Science in Computer Science and Engineering Mar. 2017 – Present
 - 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.
 - (MOOC) Reinforcement Learning, Deep Learning(Computer Vision);
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Experience

- **CVLAB, Korea University** Seoul, Republic of Korea
 - Undergraduate Researcher (Advisor: Prof. Seungryong Kim) Dec. 2020 – Present
 - Research text-guided(multi-modal) image to image translation
 - **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.
 - **VoyagerX - Internship** Seoul, Republic of Korea
 - Software Engineer with Video Processing Mar. 2020 – Aug. 2020
 - 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
 - Software Engineer with Video Processing Jan. 2019 – Sep. 2019
 - 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
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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 model and deep learning model 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.
 - **Speech Recognition Using Baum-Welch Algorithm with GMM** Sep. 2018 - Nov. 2018
 - Implement number speech recognition using Baum-Welch algorithm and Viterbi algorithm with Gaussian Mixture Model.
 - **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.
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Awards and Honors

- **3rd Prize in Intel AI Drone Contest** Oct. 2018
- **Semester High Honors**, Korea University Spring Semester, 2019