

Sehyun Choi

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EDUCATION

HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

09/2017 – 05/2022

Bachelor of Engineering in Computer Science

CGA: 3.93/4.3

HANDONG INTERNATIONAL SCHOOL

02/2011 – 03/2016

AP Physics I [5/5], AP Physics II [5/5], AP Calculus BC [5/5], ACT [34/36]

GPA: 4.40/4.5

PROFESSIONAL EXPERIENCE

HKUST UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM

02/2021 – 06/2021

Student Researcher

- Proposed novel methods utilizing Graph Neural Networks and pretrained language models applied on Commonsense Knowledge Graphs to improve the baseline in the Commonsense Knowledge Graph Population task

AI LAB KOREA OPEN LAB

01/2021 – 04/2021

AI Researcher

- Implemented a RetinaNet-based CNN model for the task of detecting specific types of pneumonia from Chest X-Ray Images
- Utilized dataset augmentation, multi-task learning, ensembles, and semi-supervised learning to improve the performance of the model and solve insufficient dataset problem

SKELTER LABS

12/2019 – 07/2020

Machine Learning Engineer Intern

- Implemented state-of-the-art deep learning models like Transformer and Encoder-Decoder model in Tensorflow
- Experimented with various methods to improve quality of deep learning based speech synthesis models, such as modifying network structures, introducing augmentations, and finetuning with different datasets
- Utilized data pipelines, microservices, and cloud services such as Spark, Kubernetes, and GCP to perform large scale training jobs
- Experienced collaborative software development including Bazel, Git & code review systems, and Agile process

EXTRACURRICULAR ACTIVITIES

HKUST KSA ML STUDY CLUB

10/2020 – present

Founding Member (https://github.com/syncdoth/ML_STUDY_2020)

- Organized a machine learning study club of more than 20 students and currently teaching with a self-devised curriculum, covering Python language, linear algebra, deep learning in tensorflow API, and real-world application projects using state-of-the-art models

J.P. MORGAN CODE FOR GOOD 2020

10/2020

Participant

- Designed a NoSQL schema for Firestore database and developed React front-end components that visualizes the submissions of each student within the administrative website for centralized communication and progress reporting

HACKATHON @HKUST

4/2019

Participant (https://github.com/syncdoth/Deadline_Manager)

- Developed an email organization app that utilizes sentiment analysis provided in Apple CoreML and Swift to rate the business email's significance score for each employee and organize them accordingly

AWARDS AND CERTIFICATES

NAVER CLOVA AI RUSH 2021

05/2021 – 07/2021

2nd place in Smart Grammar Editor Task

- Explored and proposed effective methods for data augmentation, pretraining, and finetuning for the Korean grammatical error correction (GEC) task and achieved significant improvement over the baseline

EY NEXT WAVE DATA SCIENCE COMPETITION

4/2019 – 05/2019

Country Finalist – Hong Kong (https://github.com/syncdoth/EY_DataWave_Challenge)

- Performed feature engineering and cleaning of raw data using data handling packages and developed a Recurrent Neural Network Model (LSTM) using Keras to predict the behavior of city travelers at a specific time window

SKILLS AND INTERESTS

Language: English (Fluent) | Korean (Native)

Technology: Python | Tensorflow | PyTorch | C++ | Java | OOP & Data Structures

Interests: Music | Photography | Linguistics | Neuroscience