

Sehyun Choi

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EDUCATION

HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Bachelor of Engineering in Computer Science

09/2017 – 05/2022

CGA: 3.89/4.3

HANDONG INTERNATIONAL SCHOOL

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

02/2011 – 03/2016

GPA: 4.40/4.5

PROFESSIONAL EXPERIENCE

HKUST UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM

02/2021 – present

Student Researcher

- Set up baseline for the Commonsense Knowledge Base Population task with previously proposed models and experimented with novel methods including Graph Neural Networks and attention networks applied on Knowledge Graphs to improve the baseline

AI LAB KOREA OPEN LAB

1/2021 – present

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

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

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

BLOOMBERG MARKET CONCEPTS

11/2019 – 01/2020

- Studied basic modules of financial markets and Bloomberg Terminal's usage in each steps of financial analysis

DEAN'S LIST

12/2017 – 01/2021

- Awarded every semester for achieving a term grade average over 3.7/4.3, approximately top 10th percentile of all UG students.

SKILLS AND INTERESTS

Language: English (Fluent) | Korean (Native)

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

Interests: Music | Photography | Linguistics | Neuroscience