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: 3.89/4.3**

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 REASEARCH OPPORTUNITY PROGRAM 02/2021 – present
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 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 10^{th} 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