

Kyoungjun Park

29, Hwangsaeul-ro 258beon-gil, Bundang-gu, Tmax R&D Center

Kyoungjun_park@tmax.co.kr | <https://kyoungjunpark.github.io>

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

School of Computing / M.S. degree (Outstanding Thesis Award, 3.95 / 4.3)

Advisor: Myungchul Kim

03.2017 –

02.2019

Chung-Ang University

Computer Science Engineering / B.S. degree (Summa Cum Laude, 4.36 / 4.5)

Advisor: Sungrae Cho

03.2013 –

02.2017

RESEARCH INTERESTS

Mobile and Ubiquitous Computing, Multimedia, Machine Learning, Reinforcement Learning, and Human-computer Interaction.

EMPLOYMENT

TmaxSoft Co., Ltd.

Team Leader & Research Engineer

02.2019 –

AWARDS & HONORS

Best Research Award at Tmax Group

1st place among the first-year research engineers at the Tmax group

01.2020

Outstanding Thesis Award at KAIST's School of Computing

For a Master's thesis titled "Environment-Aware Video Streaming Optimization of Power Consumption"

02.2019

The DLive Scholarship

\$3K support for the presentation of the international conference (IEEE INFOCOM)

01.2019

Qualcomm-KAIST Innovation Awards

\$5K research grant awarded by Qualcomm to challenging and creative science and engineering students

09.2018

Chung-Ang University Scholarship

Merit-based scholarships for 7 semesters

03.2013 –

02.2017

PUBLICATIONS

(Under Review) NeuSaver: Neural Adaptive Power Consumption Optimization for Mobile Video Streaming

Kyoungjun Park, Myungchul Kim, Laihyuk Park.

IEEE Transactions on Mobile Computing (TMC) 2021.

EVSO: Environment-aware Video Streaming Optimization of Power Consumption.

Kyoungjun Park, Myungchul Kim.

IEEE International Conference on Computer Communications (INFOCOM) 2019. (acceptance ratio = 19.7%, 288/1464)

Energy-Efficient Mobile Charging for Wireless Power Transfer in Internet of Things Networks.

Woongsoo Na, Junho Park, Cheol Lee, Kyoungjun Park, Joongheon Kim, Sungrae Cho.

IEEE Internet of Things Journal 2018.

PATENTS

Method and apparatus of video streaming (비디오 스트리밍 방법 및 장치)
Myungchul Kim, **Kyoungjun Park**.
South Korea, 10-2153801

09.2020 –

Method to analyze data (**Application filed in the USA & KR**)
Kyoungjun Park, Youngkwang Lee, Saemaro Moon, Changho Hwang

ACTIVITIES

Young Engineers Honor Society (YEHS) Regular Member

- Established under the National Academy of Engineering of Korea (NAEK).
- Volunteered as a high school major seminar presenter and a mentor in the middle school engineering classroom.

11.2015 –

2016 Qualcomm IT Tour

- Hosted by Qualcomm.
- Presented to CEO Derek at the San Diego headquarters on how to advance the technology.

06.27.2016 –
07.02.2016

Ubiquitous Computing Lab, Chung-Ang University

- Worked as an undergraduate researcher.
- Participated in research on efficient clustering techniques for mobile chargers with wireless charging.

01.2015 –
06.2016

RECENT PROJECTS

Recommendation & Guide for Exploratory Data Analysis (EDA) in Jupyter Notebook

- Recommended to the user for the next analysis action and the proper parameterization of analysis actions (e.g., group-by, filter, chart type, pivot).
- Developed a crawling module using GitHub's API to collect and a filtering process that only selects meaningful EDA notebooks scattered on the data center.
- Developed a customized python debugger/interpreter that can access the function call to understand the contents of python codes and processed it into training data.
→ Tracked a total of 60 functions in libraries such as pandas, matplotlib, etc.
- Utilized various models such as RNN and regression to learn user's analysis know-how and insight.

2021.01 –

Analysis Recommendation with User's Preference

- Recommended charts/graphs that users are likely to see based on past user preferences.
- Applied the deep learning model based on YouTube's recommendation model.
- Utilized various models including ARIMA and isolation-forest to analyze data features.

02.2019 –
2021.01

Video Streaming Optimization with Reinforcement Learning

- Video analysis through various observations such as network traffic, and similarity between video frames when streaming videos
- The training algorithm used the A3C technique, which is the latest actor-critic method including two neural networks.

07.2018 –
01.2021

Maritime Connectivity Platform

- A communication framework enabling efficient electronic information exchange between all authorized maritime stakeholders across available communication systems
- Developed Maritime Messaging Service that allows maritime stakeholders to communicate seamlessly and reliably.

03.2017 –
12.2018