

Yongshin Kim

Motto: "Always learning"

Nov. 1st 2021

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RESEARCH INTEREST

Causal Inference, Video & Speech synthesis, Machine Learning, Human-Computer Interaction

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

M.S. in Knowledge Service Engineering

Aug. 2020 – Jul. 2022(expected)

Advisor: Uichin Lee

Handong Global University (HGU)

B.A. Mathematics and Statistics & B.A. Management (Double-Major)

Mar. 2014 – Jul. 2020

Summa Cum Laude

PUBLICATIONS

[1] SeungLin Yang, Yongshin Kim, Doohee Chung, (2019) "*Nonlinear Relationship Between Technological Entrepreneurship and National Competitiveness: The Moderation Effect of Innovation-driven Economy*", Journal of Technology Innovation, 27(3), 113-142. (KCI)

[2] Haejun Jung, Yongshin Kim, Doohee Chung, (2019) "*The Effect of Intellectual Property-Based Startups on Employment*", Innovation Studies, 14(4), pp119-154. (KCI)

ACADEMIC EXPERIENCE

Research Assistant

Interactive Computing Lab

KAIST

Advisor: Uichin Lee

Aug. 2020 – Jul. 2022(expected)

Technological entrepreneurship Lab

HGU

Advisor: Doohee Chung

Aug. 2018 – Jul. 2020

Mathematics and Statistics major

HGU

Advisor: Heonjoo Kim

Aug. 2019 – Feb. 2020

Teaching Assistant

Business Information Technology Practice

HGU

Advisor: I-Soo Joe

Mar. 2018 – Jul. 2018

Principles of Accounting (Tutoring for foreigner)

HGU

Advisor: Hyunmo Sung

Sept. 2017 – Dec. 2017

OTHER EXPERIENCE

Mentor, Vision in Calling, HGU	Mar. 2020 – Jul. 2020
Director, Dep. of General Affairs, Student Government, HGU	Dec. 2019 – Jul. 2020
Director, Technological entrepreneurship Lab, HGU	Jul. 2019 – Feb. 2020
Executive, Residential College of International Dormitory, HGU	Jul. 2019 – Feb. 2020
Manager, Handong English Camp, HGU	Mar. 2018 – Sept. 2018
Instructor Education Certification for foreigners, HGU	Mar. 2018 – Jun. 2018
Accountant, International freshmen orientation, HGU	Mar. 2017 – Aug. 2019
English Teacher, Global Vision Christian School (GVCS)	May. 2017 – Sept. 2017

PROJECTS

Research Projects

Video & Speech synthesis	Deepbrain AI
- We produced AI Human through voice conversion using StarGAN-VC and image synthesis using FSGAN. Through the process of analyzing various voice conversion models(CycleGAN, StarGAN-VC, StarGAN-VC2), we improved the quality of voice conversion by analyzing loss terms, number of domain classes, batch size, and iteration. In addition, the average similarity between the source video and the target video was used to facilitate video synthesis.	Sept. 2021 – Oct. 2021
Digital Therapeutics (DTx)	KAIST
- We develop fundamental technologies of data-driven digital therapeutic, receptivity optimization for mobile digital therapeutic development. Furthermore, we analyze the effectiveness of digital treatments by applying causal analysis.	Aug. 2020 – Sept. 2021
Smart Mask	KAIST
- We review existing types of smart masks and study what sensor data can be collected through smart masks. Also, we develop emotional and stress monitoring algorithms through smart mask sensor data.	Jan. 2021 – present
Contact Tracing	KAIST
- We develop risk scoring algorithms that can be used for analysis to detect BLE contact between client devices. In addition, the need to introduce a place beacon is increasing as the number of cases infected with COVID increases just by staying in the same place without having to contact the confirmed patient directly.	Aug. 2020 – Dec. 2020

Course Projects

[KSE531] Human-Computer Interaction: Theory and Design	KAIST
- “Step-by-step Self-reliant Thinking with CAN(Communicative Art Network)”	Spring 2021
[KSE526] Analytical Methodologies for Big Data	KAIST
- “EFNet: Attention based CNN-LSTM Networks for Energy Usage Forecasting with External Factors”	Fall 2020
[KSE801] Special Topics in Intelligent Service Engineering (Sensor Data Science)	KAIST
- Emotion recognition with mobile phone & wearable sensor data	Fall 2020

AWARDS AND HONORS

President Award (Top 10 World-changing Projects), HGU	2020
Best Paper Award (National Technology Policy Paper Competition), IITP & KOTIS	2019
Best Paper Award (Korea Society for Innovation Management & Economics Paper Competition)	2019
Academic Top Scholarship for Seniors, HGU	2019
Academic Excellence Scholarship for Juniors, HGU	2018
Academic Excellence Scholarship for Sophomores, HGU	2017
Academic Excellence Scholarship for freshmen, HGU	2016

CONFERENCES

[1] Yongshin Kim, Panyu Zhang, Gyuwon Jung, HeePyung Kim, Uichin Lee, “*Causal Analysis of Observational Mobile Sensor Data: A Comparative Study*”, Korea Computer Congress, 2021 Spring Conference, Jeju Island, Korea (2021)

[2] Haejun Jung, Yongshin Kim, Doohee Chung, “*The Effect of Intellectual Property-Based Startups on Employment*”, Korea Technology Innovation Society, 2019 Fall Conference, Jeju Island, Korea (2019) – Best Paper Award

[3] SeungLin Yang, Yongshin Kim, Doohee Chung, “*Nonlinear Relationship Between Technological Entrepreneurship and National Competitiveness: The Moderation Effect of Innovation-driven Economy*”, Korea Society for Innovation Management & Economics, 2019 Spring Conference, Daejeon, Korea (2019) – Best Paper Award

COMPUTER SKILLS

Python(Intermediate), R(Intermediate), SPSS(Intermediate), Excel(Intermediate), SQL(Basic), STATA(Basic), AMOS(Basic), SAS(Basic)