

Jongseok Kim

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PROFILE

- » Research Assistant in Information System Lab, Chungbuk National University.
- » Focusing on Multimodal Learning, Explainable AI and Model Compression.

EDUCATION

- 📅 2023/03 – 2025/02 M.S. in Computer Science
Chungbuk National University 📍 South Korea
» Outstanding Graduate Researcher Award
- 📅 2017/03 – 2023/02 B.S. in Computer Science
Chungbuk National University 📍 South Korea
» Military Service : Republic of Korea Army (2018/07 – 2020/03)

WORK

- 📅 2025/03 – Present Research Assistant
Information System Lab 📍 Cheongju-si, South Korea
» Multimodal Learning
» Signal Processing
- 📅 2021/03 – 2021/12 Software Developer
Planit Co.,LTD. 📍 Cheongju-si, South Korea
» Medical Imaging Software Development

RESEARCH EXPERIENCE

- 📅 2022/03 – Present Ultra Light Weight Machine Learning Technique based on 3D-Imagification of Heterogeneous Time Series Data for Convergence Services based on IoT
National Research Foundation of Korea 📍 South Korea
» Role: 3D Signal Processing Researcher
- 📅 2022/03 – Present Development of 5G+ Intelligent Basestation Software Modem
Ministry of Science and ICT 📍 South Korea
» Role: Lightweight Deep Learning & Signal Processing Researcher
- 📅 2024/09 – Present Integrated Underwater Surveillance Research Center for Future Technology Adaptation
Ministry of National Defense 📍 South Korea
» Role: Sensor Data Processing & Explainable AI Researcher

AWARDS & HONORS

- 📅 2025 Outstanding Graduate Researcher Award
Chungbuk National University 📍 Cheongju-si, South Korea

PUBLICATIONS

* Corresponding Author † Co-first Authors

Submitted Manuscripts

- » (Title withheld due to double-blind policy.)
Jongseok Kim[†], Byunghyuk Youn[†], Ohyun Jo*
submitted to **IEEE Transactions on Industrial Informatics**, Under Review
Impact Factor: 9.9 (JCR Top 4.9%)
- » Hybrid Feature Selection for Assessment of Oceanic Channel via Explainable AI
Jongseok Kim, Ho-Shin Cho, Ohyun Jo*
submitted to **Journal of Ocean Engineering and Science**, Major Revision
Impact Factor: 11.8 (JCR Top 2.0%)

International Conference and Journal Papers

- » ComplexRep: Integrating Learned Representations to Enhance Complex-valued Data Transparency
Jongseok Kim, Woonggyu Min, Juyeop Kim, Ohyun Jo*
IEEE Internet of Things Journal, 2025 (SCIE), Accepted
Impact Factor: 8.9 (JCR Top 4.1%)
- » Analysis on Underwater Channel by Using Shapley Additive Explanations
Jongseok Kim, Ho-Shin Cho, Ohyun Jo*
J-KICS, 2025 (SCOPUS)
- » Denoising Method for Wireless Communication Signals Based on Convolutional AutoEncoder
Woonggyu Min, Jongseok Kim, Ohyun Jo*
ICAIIC 2025 (International Conference on Artificial Intelligence in Information and Communication)
- » MuShAug: Boosting Sequence Signal Classification via Multishape Augmentation
Jongseok Kim, Ohyun Jo*
IEEE Internet of Things Journal, 2024 (SCIE)
Impact Factor: 10.6 (JCR Top 2.2%)
- » IncepSeqNet: Advancing Signal Classification with Multi-Shape Augmentations (Student Abstract)
Jongseok Kim, Ohyun Jo*
AAAI 2024 (The 38th Annual AAAI Conference on Artificial Intelligence)
h5 index: 212
- » Intelligent Index Classification Method Based on Machine Learning for Detection of Reference Signal in 5G Networks
Seungwoo Kang[†], Taegyeom Lee[†], Jongseok Kim, A-reum-saem Lee, Juyeop Kim, Ohyun Jo*
IEEE Access, 2023 (SCIE)

Domestic Conference and Journal Papers

- » Performance Improvement for 5G DMRS Index Classification by Using Complex Neural Networks
Byunghyuk Youn, Jongseok Kim, Ohyun Jo*
APJCRI 2025
- » Exploitation of Deep Learning for Detecting 5G Preamble Signal
AReumSaem Lee, Jongseok Kim, Byunghyuk Youn, Ohyun Jo*
APJCRI 2025
- » Complex-Valued Neural Network for Enhancing 5G DMRS Index Classification
Byunghyuk Youn, Jongseok Kim, Juyeop Kim, Ohyun Jo*
KICS Winter Conference 2024

