

Junmo Kim

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RESEARCH INTEREST

Medical Informatics

I'm interested in leveraging electronic health records and various types of medical data with artificial intelligence, to overcome medical manpower shortage, prevent disease progression, and decrease health expenditures.

- Language Model for Longitudinal Electronic Health Records
- AI for Common Data Model-based Electronic Health Records
- AI for Electrocardiogram

EDUCATION

Seoul National University

- Ph.D. in Interdisciplinary Program in Bioengineering Mar 2021 – Present
 - GPA: 3.56/4.3
 - Research Interest: Medical Informatics
 - Advisor: [Prof. Kwangsoo Kim](#), [Prof. Hyung-Jin Yoon](#)

Korea University

- B.S. in Industrial Management Engineering, Mathematics Mar 2015 – Feb 2021
 - GPA: 3.63/4.5

POSITIONS

Seoul National University Hospital, Seoul, Republic of Korea

Jul 2020 – Present

- Research Assistant in Biomedical Research Institute
 - Advisor: [Prof. Kwangsoo Kim](#)
 - Project: Development of artificial intelligence-based pharmacovigilance prediction model
 - Project: Research on Support Systems for the Healthcare Social Safety Net
 - Project: AI-based lipid profile prediction and cardiovascular disease risk assessment
 - Project: Continual learning framework for multicenter study using electrocardiogram

Korea University, Seoul, Republic of Korea

Jun 2018 – Apr 2020

- Intern Researcher in Mathematical Optimization and Operation Research Lab
 - Host: [Prof. Hong Seo Ryoo](#)
 - Project: Optimization of semiconductor automatic logistic system
 - Project: Logical analysis of economic factors for short-term forecasting of airline demand

PUBLICATIONS

(*: Equal contribution)

JOURNALS

- [J10] Prediction of reduced left ventricular ejection fraction using atrial fibrillation or flutter electrocardiograms: A machine-learning study
Soonil Kwon, SooMin Chung, So-Ryoung Lee, Kwangsoo Kim, **Junmo Kim**, Dahyeon Baek, Hyun-Lim Yang, Eue-Keun Choi, and Seil Oh
Digital Health (2025)
- [J9] Identifying potential medical aid beneficiaries using machine learning: A Korean Nationwide cohort study
Junmo Kim, Su Hyun Park, Hyesu Lee, Su Kyoung Lee, Jihye Kim, Suhyun Kim, Yong Jin Kwon, and Kwangsoo Kim
International Journal of Medical Informatics (2025)
- [J8] Deep learning-based prediction of *Clostridioides difficile* infection caused by antibiotics using longitudinal electronic health records
Junmo Kim*, Joo Seong Kim*, Sae-Hoon Kim, Sooyoung Yoo, Jun Kyu Lee, and Kwangsoo Kim
npj Digital Medicine (2024)
- [J7] Continual learning framework for a multicenter study with an application to electrocardiogram
Junmo Kim, Min Hyuk Lim, Kwangsoo Kim, and Hyung-Jin Yoon
BMC Medical Informatics and Decision Making (2024)

- [J6] Deep learning-based long-term risk evaluation of incident type 2 diabetes using electrocardiogram in a non-diabetic population: a retrospective, multicentre study
Junmo Kim, Hyun-Lim Yang, Su Hwan Kim, Siun Kim, Jisoo Lee, Jiwon Ryu, Kwangsoo Kim, Zio Kim, Gun Ahn, Doyun Kwon, and Hyung-Jin Yoon
eClinicalMedicine (2024)
- [J5] Risks of complicated acute appendicitis in patients with psychiatric disorders
Junmo Kim*, Chaeyoung Yang*, Hyung Joon Joo, Rae Woong Park, Ga Eun Kim, Daeho Kim, Joonho Choi, Jun Ho Lee, Eunkyung Kim, Seon-Cheol Park, Kwangsoo Kim, and Il Bin Kim
BMC Psychiatry (2022)
- [J4] Real-Time Evaluation of Cerebral Autoregulation Based on Near-Infrared Spectroscopy to Predict Clinical Outcome after Bypass Surgery in Moyamoya Disease
Junmo Kim, Eun-Jin Ha, Hee-Soo Kim, Eun-Young Park, Hyung-Chul Lee, Yoon-Hee Choo, Youngbo Shim, Kwangsoo Kim, Keewon Kim, and Seung-Bo Lee
BioMed Research International (2022)
- [J3] Second primary malignancy risk in thyroid cancer and matched patients with and without radioiodine therapy analysis from the observational health data sciences and informatics. European Journal of Nuclear Medicine and Molecular Imaging
Seok Kim, Ji-In Bang, Dachung Boo, Borham Kim, In Young Choi, SooJeong Ko, Ie Ryung Yoo, Kwangsoo Kim, **Junmo Kim**, YoungHwan Joo, Hyun Gee Ryoo, Jin Chul Paeng, Jung Mi Park, Woncheol Jang, Byungwon Kim, Yangha Chung, Dongyoon Yang, Sooyoung Yoo, and Ho-Young Lee
European Journal of Nuclear Medicine and Molecular Imaging (2022)
- [J2] Transforming Thyroid Cancer Diagnosis and Staging Information from Unstructured Reports to the Observational Medical Outcome Partnership Common Data Model
Sooyoung Yoo, Eunsil Yoon, Dachung Boo, Borham Kim, Seok Kim, Jin Chul Paeng, Ie Ryung Yoo, In Young Choi, Kwangsoo Kim, Hyun Gee Ryoo, Sun Jung Lee, Eunhye Song, Young-Hwan Joo, **Junmo Kim**, and Ho-Young Lee
Applied Clinical Informatics (2022)
- [J1] Logical Analysis of Economic Factors for Short-Term Forecasting of Airline Demand
Sunung Kim*, **Junmo Kim***, Hong Seo Ryoo, Jonggeun Baik*
Journal of the Korean Operations Research and Management Science Society (2020)

AWARDS & SCHOLARSHIPS

Youlchon Foundation AI for All Fellowship, AI Institute in Seoul National University 2021 – Present

Veritas Scholarship, Korea University Spring 2019

- Research on optimization of semiconductor automatic logistic system
 - Advisor: [Prof. Hong Seo Ryoo](#)

REFERENCES

Prof. Kwangsoo Kim

Associate Professor, Department of Transdisciplinary Medicine, Institute of Convergence Medicine with Innovative Technology, Seoul National University Hospital
 Adjunct Associate Professor, Department of Medicine, College of Medicine, Seoul National University
 E-mail: bmilab.snuh@gmail.com

Prof. Hyung-Jin Yoon

Professor, Interdisciplinary Program in Bioengineering, Seoul National University
 E-mail: hjoyoon@snu.ac.kr

[CV compiled on 2025-01-21]