Soomin Chung

MS Student · SNU BMI Lab

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Education

Seoul National University   *Seoul, Republic of Korea*
M.S., Interdisciplinary Program of Bioengineering   *Sep 2022 - Feb 2025*
- Advisor: Prof. Kwangsoo Kim
- GPA: 4.27/4.5

EWHA Womans University   *Seoul, Republic of Korea*
B.S., Mechanical and Biomedical Engineering; Minor in Computer Engineering   *Mar 2018 - Aug 2022*
- GPA: 4.22/4.5

Experiences

Aug 2024 - Feb 2025	**Visiting Scholar at Carnegie Mellon University**, Sponsored by Institute of Information & Communications Technology Planning & Evaluation, IITP.
Jan 2022 - Aug 2022	**Research Intern**, Seoul National University, Biomedical Informatics Lab
Mar 2021 - Feb 2022	**Data Analyst (Freelancer)**, KCWI Inc., Driving Safety in Vehicles
Sep 2020 - Feb 2021	**Research Intern**, Korea Institute of Science and Technology (KIST), Brain Science Institute, ImLab
Jan 2021 - Dec 2021	**Vice President**, Young Engineers Honor Society (YEHS)

Publications

Hail Song, Wonsik Shin, Naeun Lee, **Soomin Chung**, Nojun Kwak, Woontack Woo (2025)
S3D: Sketch-Driven 3D Model Generation, GMCV Workshop at CVPR'25, **CVPRW 2025**

Soomin Chung (2025)
Longitudinal ECG Analysis with Deep Learning for Improved Detection of Reduced Left Ventricular Ejection Fraction, **M.S. Thesis, Seoul National University**

Sehoon Park*, **Soomin Chung***, Yisak Kim, Sun-Ah Yang, Soie Kwon, Jeong Min Cho, Min Jae Lee, Eunbyeol Cho, Jiwon Ryu, Sejoong Kim, Jeonghwan Lee, Hyung Jin Yoon, Edward Choi, Kwangsoo Kim+, Hajeong Lee+ (2025)
A deep-learning algorithm using real-time collected intraoperative vital sign signals for predicting acute kidney injury after major non-cardiac surgeries: A modelling study, **PLOS Medicine (SCIE, IF=10.5, JCR 2023 top 3.5%)**

Soonil Kwon*, **Soomin Chung***, So-Ryoung Lee+, Kwangsoo Kim+, Junmo Kim, Dahyeon Baek, Hyun-Lim Yang, Eue-Keun Choi, Seil Oh (2025)
Prediction of reduced left ventricular ejection fraction using atrial fibrillation or flutter electrocardiograms: A machine-learning study, **Digital Health (SCIE, IF=2.9)**

Hong Yeul Lee*, **Soomin Chung***, Dongwoo Hyeon, Hyun-Lim Yang, Hyung-Chul Lee, Ho Geol Ryu+, Hyeonhoon Lee+ (2024)
Reinforcement learning model for optimizing dexmedetomidine dosing to prevent delirium in critically ill patients, **npj Digital Medicine (SCIE, IF=15.2, JCR 2023 top 0.9%)**

Hyeonhoon Lee, **Soomin Chung**, Hong Yeul Lee (2023)
Method and Apparatus for Drug Adjustment for Delirium Prevention, **Korean Patent Application** 10-2023-0138995

Sua Kim*, Yebin Lee*, **Soomin Chung***, Miso Choi*, Hyebin Choi* (2022)
Integrated Counseling System for child, **KCSE 2022**

Na Min An, Hyeonhee Roh, **Soomin Jung**, Eun Ju Kim, Maesoon Im+ (2021)
Machine Learning Approaches as An Alternative to Human Psychophysical Tests of Prosthetic Vision, **IEEE EMBC 2021)**

Hyeonhee Roh, Eunju Kim, **Soo Min Chung**, Joon Ho Kang, Taegon Kim, Maesoon Im+ (2021)
Neural information of artificial vision varies depending on the level of spiking heterogeneity across retinal ganglion cells, **ARVO 2021**

Awards, Fellowships, & Grants

May 2024	**2nd Place, SNU x Upstage LLM Project Hackathon**, Seoul National University
Sep 2022	**Academic Excellence Scholarship**, Seoul National University
Dec 2021	**Silver Award, Engineering Capstone Design Contest**, EWHA Womans University
Jan 2021	**8th Class Scholar**, Woonhae Scholarship Foundation
Aug, 2020	**Highest Academic Excellence Scholarship (Top 2%)**, EWHA Womans University
Feb 2020, Feb 2021	**Academic Excellence Scholarship (Top 6%)**, EWHA Womans University

Research Interests

- Medical AI, Deep Learning, Reinforcement Learning, Biosignal Processing, Computer Vision