Sibeen Kim

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RESEARCH GOAL

My research goal is to develop medical technologies such as AI-powered prosthetic limbs. By creating revenue-generating human augmentation technologies, I aim to provide affordable solutions for individuals with disabilities. To achieve this mission, I will focus on AI applications and collaborate with interdisciplinary teams.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) Mar 2025 -
M.S./Ph.D. in Artificial Intelligence (Advisor: Jaegul Choo)

Korea University Mar 2018 - Feb 2025
B.S. in Biomedical Engineering, GPA: 3.99 / 4.5
*Frequent leave of absence for hospitalization and surgery Jan 2018 - Oct 2021

Gyeonggi Science High School Mar 2015 - Feb 2018
School for Gifted Students in Science

JOURNAL PAPERS

[**J3**] **S. Kim***, I. Kim*, W.T. Yuh*, S. Han, C. Kim, Y.S. Ko, W. Cho, S.B. Park. Augmented prediction of vertebral collapse after osteoporotic vertebral compression fractures through parameter-efficient fine-tuning of biomedical foundation models. *Scientific Reports* **14**, 31820 (2024). (*co-first authors)

[**J2**] Y.W. Park, G. Jang, **S.B. Kim**, K. Choi, K. Han, N. Shin, S.S. Ahn, J.H. Chang, S.H. Kim, S. Lee, R. Jain. Leptomeningeal metastases in isocitrate dehydrogenase-wildtype glioblastomas revisited: Comprehensive analysis of incidence, risk factors, and prognosis based on post-contrast fluid-attenuated inversion recovery. *Neuro-Oncology*, 2024.

[**J1**] C. Park*, S. Choi*, D. Kim, **S. Kim**, K. Han, S. Ahn, W. Lee, E. Choi, K. Keum, J. Kim. MRI radiomics may predict early tumor recurrence in patients with sinonasal squamous cell carcinoma. *European Radiology* **34**, 3151–3159 (2024). (*co-first authors)

WORK EXPERIENCE

Letsur Jan 2024 - Present
Research Intern (Mentor: Wonwoo Cho)

Severance Hospital Apr 2023 - Present
Laboratory of Advanced Neuroimaging Biomarker Research (LANIB)
Research Intern (Advisor: Sungsoo Ahn, Yaewon Park)

RESEARCH EXPERIENCE

Korea University Mar 2024 - Jun 2024
Brain Reverse Engineering by Intelligent Neuroimaging (BREIN) Lab
Capstone Design Student (Advisor: Joonkyung Seong)

KAIST AI Jan 2024 - Mar 2024
Data and Visual Analytics (DAVIAN) Lab
Basic Study

- Linear Algebra, CS229-Machine Learning, CS182-Deep Learning
- CS182-HW1, CS182-HW2, CS182-HW3
- **2nd place** in exam

Sungkyunkwan University Feb 2016 - Aug 2017

B-ICT Lab
Research Intern (Advisor: Jounghwan Mun, Ahnryul Choi)

- Graduation Thesis: "Influence of Abnormal Foot Progression Angle on Adolescent Knee"

PROJECTS

Comparative Analysis of SVMs and MLPs Apr 2024
SVM # MLP # CIFAR-10 # Hyperparameter tuning

EHR Synthesis in OMOP CDM Using Diffusion Models Mar 2024 - Jun 2024
EHR # OMOP CDM # Diffusion model # Synthetic data

FL-PoST Dec 2023 - Present
Federated Learning # Segmentation # Glioblastoma

Neuro-QAI: Adaptive Learning in Noisy Label Environments Dec 2023
Q-Learning # Neuroimmune System # Noisy label

Optimizing Training Procedures for Brain Tumor Segmentation Dec 2023
nnUNet # BraTS18 # Gaussian KDE # Optimal Cropping

Comparative Study of IDH-Wildtype and IDH-Mutant Gliomas Sep 2023 - Oct 2023
Segmentation # IDH status # Low ADC Peak # Subventricular Zone (SVZ)

INVITED TALKS

OVF Collapse Prediction: Model Architecture and Hyperparameters
5th Conference on Digital Convergence Research, Korean Neurosurgical Society Jun 15, 2024

SKILLS

English

- **TOEIC 975/990** (Valid until 2025/07/09)

Algorithm

- **Passed** 2022 Kakao Blind Recruitment Algorithm Code Test