# Sibeen Kim

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### RESEARCH GOAL

My research goal is to develop medical technologies such as AI-powered prosthetic limbs. By creating revenuegenerating 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 University Mar 2018 - Feb 2025

B.S. in Biomedical Engineering, GPA: 3.91 / 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. Submitted to Scientific Reports, 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

Mar 2024 - Jun 2024 Korea University

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

#nn<br/>UNet # BraTS18 # Gaussian KDE<br/> # Optimal Cropping

 ${\bf Comparative~Study~of~IDH\text{-}Wildtype~and~IDH\text{-}Mutant~Gliomas}$ 

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