

Inhyeok Baek

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Education

Seoul National University

Republic of Korea

Doctor of Medicine

B.S. in Mathematical Sciences

Cumulative GPA: 3.78/4.30

March 2020–Present

Expected graduation: February 2030

Research Experience

Innovative Radiology AI Laboratory

July 2024–Present

Seoul National University Hospital

- Developing a multimodal chest X-ray report generation model, integrating both patient information and image features to enhance clinical relevance and accuracy of generated reports.
- Developing a chest CT report error detection model, using large language models to identify and categorize potential errors in radiology reports.

Functional Neuroanatomy of Metabolism Regulation Lab

July 2021–August 2022

Seoul National University College of Medicine

- Participated in the analysis of animal behavioral experiment data using DeepLabCut, a deep learning library for markerless pose estimation. Developed behavioral indices measuring goal-directed eating behaviors.

Professional Experience

Rosota

November 2025–Present

Robotics AI Engineer

- Developing autonomous surgical and medical assistance robots utilizing state-of-the-art physical AI and robotics hardware.

Research Grants

Han Man-Chung Research Grant

May 2025–April 2026

Development and Evaluation of Large Language Models for Chest CT Report Error Detection

KRW 2,000,000

Publications (Selected)

Full list: Google Scholar | ORCID

- **CREPE: Rapid Chest X-ray Report Evaluation by Predicting Multi-category Error Counts.** Gihun Cho, Seunghyun Jang, Hanbin Ko, **Inhyeok Baek**, and Chang Min Park. *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing*, 2025.
- **Exploring the Capabilities of LLM Encoders for Image-Text Retrieval in Chest X-rays.** Hanbin Ko, Gihun Cho, **Inhyeok Baek**, Donguk Kim, Joonbeom Koo, Changi Kim, Dongheon Lee, and Chang Min Park. *arXiv*, 2025.

Awards and Scholarships

- *Silver award*, University Students Contest of Mathematics (2025, 2024, 2023)
- *4th place*, SNU Bundang Hospital ICU Datathon (2023)
- Performance-based scholarship from SNU Project Group for Education and Research in Medical AI (2023)

Skills

Languages

Korean (native), English

Programming

Python

Frameworks

PyTorch, Hugging Face / Transformers

Tools & Platforms

LaTeX, Linux, Docker