Gyeom Hwangbo

Bachelor Student
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Education

- **Kyung Hee University** — Mar. 2023 – Present
  Department of Industrial and Management Systems Engineering

  Bachelor Student
  GPA: 3.54 / 4.5

Research Interests

- Medical Machine Learning
- Medical Imaging
- Medical Data Analysis

Research Experiences

- **Zarathu Internship** — Zarathu, Korea
  Intern — Jul. 2025 – Present

  - Medical data analysis
  - R package development
  - Web service deployment using Shiny
  - https://github.com/zarathucorp/rashnu

Awards and Honors

- **2024 8th GIST AI Innovative Convergence Technology Contest** — Gwangju Institute of Science and Technology, Korea
  1st place — Jul. 2024 – Aug. 2024

  - Table tennis robot contest
  - Ball detection and trajectory calculation using OpenCV and YOLOv5 (C++)
  - Rack-and-pinion robot using actuators, linear rail and 3D-printed components (C++)
  - https://github.com/hbgyeom/Table_tennis_robot-

Projects

- **2024 XR Device Contents Makeathon**   Ministry of Science and ICT, Korea
Oct. 2024 – Nov. 2024

  - Real-time dysarthria detection and detection and correction application
  - Fine-tuned Whisper (AI) using dysarthria speech recognition data from AI-Hub (Python)
  - VR device application using Unity (C#)
  - https://github.com/hbgyeom/XR_make-a-ton

Skills and Techniques

- **Programming and Development**

  - Languages: Python, R, C, C++, Bash
  - Tools and Environments: Linux, Git, Docker, Neovim, Visual Studio Code, RStudio

- **Artificial Intelligence and Machine Learning**

  - Libraries and Frameworks: TensorFlow, Keras, scikit-learn, OpenCV, Hugging Face
  - Applications: Object detection, speech recognition, model fine-tuning (YOLOv5, Whisper)
  - Techniques: Supervised learning, CNN-based modeling, fine-tuning

- **Statistical Analysis**

  - R Packages: tidyverse, dplyr, ggplot2, data.table, Shiny, MatchIt, jskm, jsmodule, jstable
  - Statistical Tests: t-test, Chi-square test, ANOVA, Correlation analysis
  - Models: Linear regression, Logistic Regression, Cox proportional hazards model, ARIMA
  - Causal Inference: Propensity Score Matching (PSM)

Languages

- **Fluent English**

  - TOEIC 965 / 990   Feb. 2025
  - OPIc IH   Jul. 2024
  - English Interpreter, G-3 Operations, I Corps   Dec. 2021 – Jun. 2023