Geonwoo Son

AI Engineer • Researcher

Phone: +82 10 2620 9388   Email: wooubit7@gmail.com   Github: github.com/rjsnths

Address: 110, Suyang-ro, Geoje-si, Gyeongsangnam-do, Republic of Korea

Education

Bachelor of Science, Intelligent Mechatronics Engineering   MAR 2020 - FEB 2026(Expected)

Sejong University   *Seoul, Republic of Korea*

Information	Leave of absence for military service	MAR 2021 - FEB 2023
	GPA: 4.24/4.5 (Major GPA: 4.31/4.5)	

Courses   **Computer Science**: Data Structures, Algorithms, Machine Learning,
                     Artificial Intelligence
                 Mathematics: Probability and Statistics, Linear Algebra,
                     Engineering Mathematics, Discrete Mathematics, Calculus
                 Signal & Control System: Digital Signal Processing, Image Processing,
                     Automatic Control, Signals and Systems
                 Electronics & Communication: Communication Systems, Digital Systems,
                     Semiconductor Basics
                 Physics: Dynamics, General Physics

Research Interest

MultiModal AI	Self-Supervised Learning, LLM, Voice, Generative AI
Vision	Computer Vision, Image Processing, Medical Imaging
Domain	Signal Processing, Domain Transform

Research Experiences

Student Researcher, Undergraduate Research Program   JUL 2025 – AUG 2025

Sejong Univ.   *Seoul, Republic of Korea*

Topic	**Water-Fat Separation based on Deep Image Prior**
Advisor	Professor Jaejin Cho (*Sejong Univ.*)
Activity	• DIP Self-Guidance Reconstruction for Liver MRI
	• Evaluated performance via SSIM / NRMSE / PSNR
Paper	**ICMRI 2025, Seoul**

Student Researcher, Undergraduate Research Program   SEP 2024 – JUL 2025

Sejong Univ.   *Seoul, Republic of Korea*

Topic	**ZeroShot Self-Supervised Learning in MRI Reconsturction**
Advisor	Professor Jaejin Cho (*Sejong Univ.*)
Project 1	**k-Space Weight Masking in Self-Supervised Multi-Shot MRI**
	• Applied a mask before residual block and removed it after network inference
	• Tested various mask and evaluated performance via SSIM and MSE

Project 2   **Replacing ResNet with U-Net and Exploring 3D Extension**
• Modified network architecture to improve reconstruction performance
• Explored 3D input by adding a z-axis, replacing 2D slice-wise processing

Academic Experiences

Presentor, Capstone Design Project(Received 1st Award)   MAR 2025 – MAY 2025
Sejong Univ.   *Seoul, Republic of Korea*

Topic 1   **Detecting baby's Prone Position and a Moving**
• Detecting Prone Position, get alert to parents
• Fine-Tuning YOLOv8 with baby Dataset
• Get Timestamp when baby's motion are detecting, based on pose estimation

Topic 2   **ZeroShot-TTS(Text-to-Speech)**
• Cloning user's voice to provide a storytelling to baby
• Fine-Tuning open sources(FastSpeech2.0, Star-GAN)

Honors and Awards

Sejong Univ.   *Seoul, Republic of Korea*

Awards   3rd Place, 12th SW·AI Hackaton   JUN 2025
1st Place, 19th Creative Design Competition   MAY 2025

Honors   Academic Excellence Scholarship, 2025 1st semester   AUG 2025
Academic Excellence Scholarship, 2024 2nd semester   FEB 2025
Academic Excellence Scholarship, 2024 1st semester   AUG 2024
Academic Excellence Scholarship, 2023 2nd semester   FEB 2024
Academic Improvement Scholarship, 2023 2nd semester   FEB 2024