Yongeun Cho

+1 (934) 223-9732 | gdakate1215@gmail.com | linkedin.com/in/yoneguncho | Stony Brook, NY

Education

Stony Brook University — New York, USA
M.S. in Data Science — CV Lab - Professor. Zhaozheng Yin — *Expected Graduation : 2027*

Sookmyung Women's University — Seoul, Republic of Korea
B.S. in IT Engineering — *Mar 2020 – Aug 2024*

Selceted Project

Medical Image Segmentation with Vision Foundation Models (Ongoing) — Jan 2026 – Present
ML Engineer — Stony Brook CV Lab — *Stony Brook, NY*

- Benchmarking zero-shot SAM on Kvasir-SEG and NCI-ISBI to quantify medical domain shift.
- Developing gaze-informed prompting strategies under weak supervision settings.

Face Anonymization using Diffusion Models — Mar 2025
ML Researcher — *Seoul, Republic of Korea*

- Reduced diffusion inference time by 53% (18.6s to 8.7s) via identity-exclusion and hyperparameter tuning.
- Established evaluation pipeline using Re-ID and FID metrics to assess privacy-utility tradeoffs.
- Deployed identity-exclusion logic to minimize privacy risks while preserving facial attributes.
- Won **2nd Prize** at Google ML Bootcamp (KSTA/NIPA) for technical innovation.

Real-time Vision System for Assistive Shopping — Mar 2024 – May 2024
Team Leader, Backend and ML Developer — *Seoul, Republic of Korea*

- Built YOLOv8-based object detection system optimized for cluttered grocery environments, achieving **83%** accuracy through data refinement and augmentation strategies.
- Optimized Flask+AWS inference pipeline for $< 1s$ latency in product identification.
- Deployed MediaPipe gesture recognition with audio feedback for hands-free accessibility and won **2nd place** in IPS AI Competition for CV-based accessibility solutions.

Work Experience

Software Engineering Intern — Aug 2024 – Sep 2024
Mand.ro — *Incheon, Republic of Korea*

- Optimized real-time EMG visualization for prosthetic control, reducing latency to $< 1s$ by migrating from Matplotlib to OpenCV.
- Enhanced HMI responsiveness for assistive robotics by streamlining signal-to-visual data flow.

Backend Developer — Feb 2024 – Aug 2024
Snowrose Reorganization Task Force Team — *Seoul, Republic of Korea*

- Designed scalable backend APIs serving 1700+ DAU and improved database query performance by 30%.

Conference Presentations

Y.E. Cho, J.W. Lee, "Real-time Shopping Assistant for the Visually Impaired," Proceedings of the 2024 Korean Entertainment Media Society Fall Conference, Vol. 27, No. 2, Seoul, Korea.
Y.E. Cho, J.W. Lee, "A Study on Drug Interaction and Side Effect Prevention", Presented at the 2024 Korea Digital Content Society Summer Conference, Seoul, Republic of Korea, July 2024.

Skills

Machine Learning & Vision: PyTorch, TensorFlow, Diffusion Models, SAM, YOLOv5/v8, OpenCV, MediaPipe
Foundation Models & LLM Tools: Hugging Face, LangChain, REST APIs for LLM deployment
Backend & Deployment: Flask, FastAPI, Spring Boot, Docker, AWS, GCP, Git
Languages: Python, Java, C++, SQL, C