GEONHUI JO

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EDUCATION

Ewha Womans University, Seoul, South Korea *Sep 2022 - Aug 2024*
M.S. in Artificial Intelligence and Software, Advisor: Prof. Jang-Hwan Choi
GPA: 4.3/4.3
Thesis: Advancing Cross Attention Mechanisms for Cross Domain Applications
Focus: Deep Network with Cross Attention

Ewha Womans University, Seoul, South Korea *Mar 2019 - Aug 2022*
B.S. in Computer Science and Engineering *Early Graduation*
GPA: 3.98/4.3 (3.8/4.0)
Graduate with *Magna Cum Laude* ; Dean's list every semester (2019-2022)

RESEARCH INTERESTS

"Toward Intelligent Perception through Generative Models"
Computer Vision, Generative Modeling, and Efficient Inference, with Applications Spanning 3D Perception, Human-centered AI, and Robotics

RESEARCH EXPERIENCE

Medical AI and Computer Vision Lab, Ewha Womans University, South Korea *Jul 2021 - Current*

Action Recognition via Visualization of 3D Skeleton (On-going)
Focus: 3D Skeleton Data, Vision, Video VAE, Deep Learing
Advisor: Prof. Jang-Hwan Choi

Training-Free Consistent Image Editing (On-going)
Focus: Generative Model, Image Editing, Training-free
Advisor: Prof. Jang-Hwan Choi, Prof. Jinhwa Kim (Naver AI Lab) and Junho Kim (Naver AI Lab)

Scale-Wise Autoregression and Adaptive Flow Matching for Novel View Synthesis (On-going)
Focus: Generative Model, Autoregression, 3D Data Processing, Real-time Inference, Deep Learning
Submitted a conference paper on novel view synthesis methodology
Advisor: Prof. Jang-Hwan Choi and Junho Kim (Naver AI Lab)

Multi-Omics-Based Influenza Virus Variant Responding Platform Development
Focus: Protein-Protein Interaction Prediction, Language Model, Deep Learning
Developed Attention-based deep learning network for long-length protein sequences
Accepted an SCI journal paper, developed an web-server application on virus risk prediction
https://runai.ewha.ac.kr/seqda ; https://github.com/Ewha-AI/SeqDA-HLA
Advisor: Prof. Jang-Hwan Choi and Prof. Soo-Young Cho (Hanyang Univ.)

Gait-Based Person Re-Identification Deep Network Development
Focus: 3D Skeleton Data, Projection, Image Generation, Deep Learning
Published two domestic patents on 3D coordinates and projection
https://aix.ewha.ac.kr/aix.industrial/program01
Advisor: Prof. Jang-Hwan Choi

3D Navigation-Integrated Low-Dose C-Arm CT System Development
Focus: Medical Image Quality Enhancement, Model Efficiency, Deep Learning
Published a conference paper on fluoroscopy image enhancement framework
Advisor: Prof. Jang-Hwan Choi

Clinical Data–Driven Patient Information Representation Research
Focus: EHR(Electronic Health Record) Data, Feature Representation, Deep Learning
Advisor: Prof. Jang-Hwan Choi and Dr. Ho-Youl Jung (ETRI)

RELEVANT EXPERIENCE

Visiting Research, Patten Recognition Lab, FAU Erlangen-Nürnberg, Germany *Sep 2025 - Current*

Joint Research on the Development of AI-based Image Processing Algorithms (On-going)
Focus: Deep Learning, Generative Model, Image Processing

AI Robotics Group Study, XYZ Corp., South Korea *June - Aug 2025*

Hands-On Imitation Learning on Leader–Follower Robotic Arms
Focus: Robotics, Imitation Learning, Diffusion, Flow Matching, Vision-Language-Action(VLA)
Collaborating with AI and robotics researchers to explore generative model-based robot control methods
Adapting recent open-source research and implementations in SO-ARM101 to synthesize and control robotic behaviors in real-world settings

PROFESSIONAL EXPERIENCE

Researcher Industry-Academic Cooperation Foundation, Ewha W. University, South Korea *Aug 2025 - Current*
Researcher Center for Liver, Biliary and Pancreatic Cancer, National Cancer Center, South Korea *Jan - Jul 2025*

PUBLICATIONS

Under Preparation
G. Jo, J. Son, J. Kim and J.H. Choi "ARFlowNet: Escaping Diffusion Bottlenecks with Scale-Wise Autoregression and Adaptive Flow Matching for Novel View Synthesis" in The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2026 (CVPR 2026) *Co-first author*
G. Jo, S. Kim and J.H. Choi "POVNet: Pseudo-Omni-View Based Unsupervised Representation Learning with Deep Network for Action Recognition" in The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2026 (CVPR 2026) *Co-first author*
J. Son, H. Cho, G. Jo, J.H. Kim, J. Kim and J.H. Choi "Training-free Consistent Image Editing" in The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2026 (CVPR 2026) *Co-author*

Accepted - Before Published
G.Kim, G. Jo, M. Kim, S.Y. Cho and J.H. Choi "SeqDA-HLA: Language model and dual attention-based network to predict peptide-HLA class I binding" in IEEE Transactions on Computational Biology and Bioinformatics *Co-first author*

Published
G. Jo, M. Jang, S.Y. Jeon, W. Kim and J.H. Choi "A motion-level-aware denoising framework for x-ray fluoroscopic images." in SPIE Medical Imaging: Physics of Medical Imaging, 2023 *Co-first author*
W. Kim, W. Lee, S.Y. Jeon, N. Kang, G. Jo and J.H. Choi "Deep Denoising Network for X-Ray Fluoroscopic Image Sequences of Moving Objects." in Machine Learning for Medical Image Reconstruction: 5th International Workshop (MLMIR), 2022 *Co-author*

PATENTS

KR-10-2023-0155687 - Patent published
A method and an apparatus for creating a two-dimensional image using three-dimensional coordinates
KR-10-2023-0155688 - Patent published
A method and an apparatus for augmenting 3D coordinate data using projection

HONORS AND AWARDS

Artificial Intelligence Convergence Innovation Human Resources Development Project Scholarship, Institute for Information & Communication Technology Planning & Evaluation (IITP) *Sep 2022 - Aug 2024*
For competitive government-funded scholarship covering full tuition and additional research funding throughout the M.S. program

Grand Prize, The 2nd Ewha Convergence Research Program Forum, Ewha W. Univ. *Jan 2024*
For presenting "Enhanced Gait Recognition Deep Network with Visualization of 3D Skeleton Coordinates"

Outstanding Work, The 1st AIX Creative Autonomous Project, Ewha W. Univ. *Sep 2023*
For presenting "Gait Recognition Deep Network with Augmented Multi-view Projection Skeleton Images", only 2 groups were selected

Graduate Interdisciplinary Project Scholarship, Ewha W. Univ. *Sep 2023*
For supporting an outstanding interdisciplinary research project

Ewha Outstanding Science Student Scholarship, Ewha W. Univ. *Sep 2022*
For academic excellence at admission to the M.S. program

Samsung Dream Class Tutor Scholarship, Samsung *Feb 2020*
For serving as a tutor in the Dream Class program, teaching mathematics and computing to middle school students

Academic Excellence Scholarship, Ewha W. Univ. *Aug 2019*
For achieving a GPA of 4.23/4.3

TEACHING EXPERIENCE

Deep Learning (Course# G18425) *Spring 2024*
Department of Artificial Intelligence

Statistical Learning Theory (Course# 38586) *Fall 2021*
Division of Mechanical and Biomedical Engineering

Internet and Social Computing (Course# 10556) *Fall 2021*
Department of Computer Science and Engineering

EXTRA-CURRICULAR ACTIVITIES

Digital Literacy Training Program for Senior Citizens, Voluntary Instructor *Aug - Dec 2022*
Freshman Software Education Program, Software Education Tutor *Feb 2022*
Ewha Dawoory Mentoring Program, Voluntary Mentor *Aug - Dec 2020*
Korean Traditional Music Club, NiliEWHA, Gayageum Player *Mar - Aug 2019*
Ewha Language Center Korean Language Teaching Program, Voluntary Tutor *Mar - May 2019*

SKILLS

Programming Languages	Python, C/C++, MATLAB
Frameworks and Tools	Pytorch, Blender, Flask, ROS2
Laguages	Korean(Native), English(Fluent), French(Intermediate)