Sieun(Sienna) Choi

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RESEARCH INTERESTS

Multimodal Learning · Computer Vision · Natural Language Processing · Robotics · Reinforcement Learning

EDUCATION

Dongguk University   Seoul, South Korea
M.S. in Artificial Intelligence   *Mar 2024 - Feb 2026 (expected)*
- Cumulative GPA: 4.5/4.5

B.E. in Information and Communication Engineering   *Mar 2019 - Feb 2024*
- Graduated Magna Cum Laude | Cumulative GPA: 4.16/4.5 | Major GPA: 4.29/4.5

RESEARCH EXPERIENCE

roBot Intelligence Group (BIG)   Pittsburgh, PA, United States
Visiting Researcher at Carnegie Mellon University – supervised by Dr. Jean Oh   *Aug 2025 - Feb 2026 (expected)*

Machine Learning Lab   Seoul, South Korea
Dongguk University – supervised by Dr. Jihie Kim   *Mar 2024 - Feb 2026 (expected)*

Artificial Intelligence Lab   Seoul, South Korea
Undergraduate Researcher at Dongguk University – supervised by Dr. Gijoo Yang   *Feb 2022 - Dec 2022*

Machine-to-Machine Lab (M2M)   West Lafayette, IN, United States
Visiting Scholar at Purdue University – supervised by Dr. Eric Matson   *Oct 2021 - Dec 2021*

PUBLICATIONS

Diffusion Model Enhancement for Sketch Generation via Visual Question Answering Feedback
Under Review; Patent Application in Progress

ML-Based Decision Making for Endoscopic Retrograde Cholangiopancreatography
Preprint; Collaboration with Dongguk University Medical Center

Dedicated Delivery Platform Based on the User Experience of the Visually Impaired   *2022*
Published in the Proceedings of the Korea Information Processing Society Conference

OTHER EXPERIENCE

Teaching Assistant
Computer Network and Security (SCS4032)   *Spring 2024 , Spring 2025*
Computer System (SCS2011)   *Fall 2024 , Spring 2025*
Data Science Capstone Design (DSC4007)   *Spring 2024 , Fall 2024, Spring 2025*

Teaching Materials Author
Open Source Software Project (SCS4045) — Docker & Git

IJCAI 2024 Volunteer Program   Jeju, South Korea
Student Volunteer   *Aug 2024*

Technology Team   San Jose, CA, United States
Intern at Cipherome, Inc   *Mar 2023 - Feb 2024*

Dept. Information and Communication Engineering Student Association   Dongguk University, Seoul, South Korea
President   *2023*

Junior Automotive Enginnering Program   Hyundai KEFICO, Gyeonggi, South Korea
Volunteer   *May 2020 - Nov 2020*

Exchange Student Supporter   Dongguk University, Seoul, South Korea
Vice president   *Aug 2019 - Dec 2019*

PROJECTS

SEA: Evaluating Sketch Abstraction Efficiency via Element-level Commonsense VQA   *Jul 2025 - ongoing*

Dynamic Access Management of Malicious Packets with Reinforcement Learning   *Mar 2025 - Jul 2025*

Mobile Data Loss Prevention System for Real-Time Personal Data Monitoring
Undergraduate Capstone Design   *Aug 2022 - Dec 2022*

AWARDS & HONORS

ICT Challenge 2024 – 1st Place   *Sep 2024*
Ministry of Science and ICT, South Korea

Merit-Based Scholarship   *2022 - 2023*
Dongguk University, Seoul, South Korea

Dean's List   *2020 - 2022*
Dongguk University, Seoul, South Korea

Software-Centered Academic Excellence Scholarship   *2021*
Dongguk University, Seoul, South Korea

Dongguk Leader Scholarship – Student Representative   *2021*
Dongguk University, Seoul, South Korea

ICT Convergence Services Idea Competition based on 5G and AI – 1st Place   *Feb 2021*
The Korean Institute of Communications and Information Sciences, South Korea

Academic Excellence Scholarship   *2020*
Dongguk University, Seoul, South Korea

RELEVANT SKILLS

Programming: Python, C, SQL
Libraries: PyTorch, TensorFlow/Keras, scikit-learn, MONAI, OpenCV, SimpleITK, NumPy, pandas
Systems & Ops: FastAPI, Docker, MySQL, AWS, Git, GitHub Actions, Linux (Ubuntu), LaTeX
Languages: English, Korean