

SEONUK KIM

Machine Learning Scientist,
Thingsflow

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<https://seonukkim.github.io>

EDUCATION

2020.03 – Present **Ulsan National Institute of Science and Technology (UNIST)** Ulsan, Korea
Undergraduate student. Double majoring in *Industrial Engineering* and *Design*

EMPLOYMENT

Thingsflow Seoul, Korea
2023.09 – Present *Machine Learning Scientist – Alternative Military Service*
2023.05 – 2023.08 *Machine Learning Scientist Intern*
Mentors: Joonhee Kim, Jooyeon Kim, Jeff Oh
2021.12 – 2024.03 **Expressive Computing Laboratory, UNIST** Ulsan, Korea
Research Assistant
Advisor: Professor Kyungho Lee
2020.11 – 2021.12 **Service Engineering and Knowledge Discovery Laboratory, UNIST** Ulsan, Korea
Artificial Intelligence Graduate School Creative Independent Project Researcher
Advisor: Professor Chiehyeon Lim

HONORS AND AWARDS

2023 – Present **Presidential Science Scholarship**, Korea Student Aid Foundation
2020 – 2023 Academic Performance Scholarship, UNIST
2024 3rd place (\$1,500 as awards), 3rd POSTECH-UNIST-UNIST Data Science Competition
2023 2nd place (\$1,500 as awards), 2nd KAIST-POSTECH-UNIST Data Science Competition
2022 Best Student Paper Honorable Mention, Korea Society of Design Science
Excellence Prize, 9th IEEE Quiz Contest for undergraduates
4th place (\$800 as awards), 1st UNIST-POSTECH-KAIST Data Science Competition
2021 2nd place, Lee Soo-hyun 20th Memorial Book Review Essay Contest
2020 Excellence Prize (\$2,300 as awards), Campus Patent Universiade

PUBLICATIONS

* denotes equal contribution

PEER-REVIEWED CONFERENCE AND JOURNAL PAPERS

[c.1] **Designing Interfaces for Text-To-Image Prompt Engineering with Stable Diffusion Models: A Human-AI Interaction**
Seonuk Kim, Taeyoung Ko, Yousang Kwon, Kyungho Lee
IASDR 2023: Congress of the International Association of Societies of Design Research

PEER-REVIEWED POSTERS AND WORKSHOP PAPERS

[p.1] **Representing the Timbre of Traditional Musical Instruments Based On Contemporary Instrumental Samples Using DDSP**
Yousang Kwon, Seonuk Kim, Taeyoung Ko, Juhyeok Yoon, Kyungho Lee
UIST 2023 Poster: ACM Symposium on User Interface Software and Technology

PEER-REVIEWED DOMESTIC CONFERENCE AND JOURNAL PAPERS (in Korean)

- [d.2] **#taggenerator: How an Online Community Designs an Interface for Text Prompt Inputs Using a NovelAI's Diffusion Model**
Seonuk Kim, Yousang Kwon, Kyungho Lee
HCIK 2023: HCI KOREA Conference
- [d.1] **A Study on the Use of AI as Creative Support Tool for Line Drawing in Manga Production**
Seonuk Kim, Kyungho Lee
KSDS 2022: 2022 Korea Society of Design Science Conference
Best Student Paper Honorable Mention (top 39%)

BOOK CHAPTERS (in Korean)

- [b.1] **Swings and Blossoms** (in **The Moment when the Star is Born**. egowriting. 2021. pp.133-166.)
Seonuk Kim
Short stories written by different people including the disabled

SKILLS

Image Generation	Diffusers, Stable Diffusion web UI (Automatic1111) and extensions, ComfyUI, kohya_ss
Machine Learning	TensorFlow, Keras, PyTorch, PyCaret, KerasTuner, AutoKeras, Optuna
Visual Design	Clip Studio, Photoshop, Illustrator, InDesign, Figma, Premiere Pro
Product Design	Fusion 360, SolidWorks, Ansys, Zortrax

EXTRACURRICULAR ACTIVITIES

2020.09 – Present	HeXA , Development and Information Security Club, UNIST <i>President (2022.08 – 2023.07) / Executive Board Member (2021.03 – Present)</i> <ul style="list-style-type: none">• Planned, emceed, budgeted, and designed poster for NEXUS 2023: Computer Science and Engineering Major Alumni Homecoming Event and Lectures• Selected as member of Hyundai Mobis Outstanding SW Supporters Club and received \$800 in monetary support at 2023• Conducted projects, operated on-campus SW services such as campus meal guide apps, won competitions, and provided educational volunteer work for local youth
2022.08 – 2023.02 2023.01	Consulate-General of Japan in Busan <i>Ambassador</i> , Assisted events as volunteer and created official social media content and Vlogs <i>JENESYS 2022 (Japan-East Asia Network of Exchange for Students and Youths)</i> , Visit Japan for one week at the invitation of the Japanese Ministry of Foreign Affairs
2023.03 – 2023.06	UNIST Undergraduate Student Council <i>Policy Team Member</i> , UNIST Undergraduate Student Council Emergency Committee
2023.02 – 2023.03	<i>Chair</i> , UNIST Club Union Election Commission
2021.09 – 2021.12	<i>Legal Support TF Member</i> , WE:TH U, 11th UNIST Undergraduate Student Council

TEACHING

2023 Spring	Teaching Assistant, ITP107 Intro. to AI Programming I, UNIST (Instructor: Michael Burrell)
2022.12 – 2023.02	Tutor, NAVER 1784 School Revolution, Educated SW·AI to elementary school students
2022.05 – 2022.12	Tutor, Ulju The Dream Campus, Educated Python and algorithms to middle school student
2021.09 – 2021.12	Tutor, Ulju The Dream Campus, Educated 3D printing and Arduino to middle school students

PERSONAL INFORMATION

2019.06 – 2020.01	Baron Academy of Manga and Webtoon Busan, Korea Academy that professional webtoonists teach to create manga, webtoon, and illustration
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