SEONUK KIM

Machine Learning Scientist,   seonukkima@gmail.com
Thingsflow   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, Jeff Oh, Jooyeon Kim	
2021.12 – Present	**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
President (2022.08 – 2023.07) / Executive Board Member (2021.03 – 2023.09)
- 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

Consulate-General of Japan in Busan
2022.08 – 2023.02 *Ambassador*, Assisted events as volunteer and created official social media content and Vlogs
2023.01 *JENESYS 2022 (Japan-East Asia Network of Exchange for Students and Youths)*, Visit Japan for one week at the invitation of the Japanese Ministry of Foreign Affairs

UNIST Undergraduate Student Council
2023.03 – 2023.06 *Policy Team Member*, UNIST Undergraduate Student Council Emergency Committee
2023.02 – 2023.03 *Chair*, UNIST Club Union Election Commission
2021.09 – 2021.12 *Legal Support TF Member*, 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