

Seonuk Kim

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INTERESTS	Cartoon, Design, Data Science, Artificial Intelligence	
EDUCATION	<i>Undergraduate Student</i> Ulsan National Institute of Science and Technology (UNIST) <ul style="list-style-type: none">• Double major: Industrial Engineering, Design• Total GPA of 3.69 / 4.3 during 3 semesters <i>High school Student</i> Busan Science High School	Mar. 2020 – Current Ulsan, Korea Mar. 2015 – Jan. 2019 Busan, Korea
HONORS AND AWARDS	<ul style="list-style-type: none">• <i>Gold Prize</i>, Lee Su-hyeon 20th Anniversary Book Review Contest, 2021 [Article] Host: Consulate-General of Japan in Busan• <i>Excellent Prize</i>, Campus Patent Universiade, 2020 [Article] Host: Korean Intellectual Property Office (KIPO) Demand: Samsung Electronics Co., Ltd. (<i>Adviser: Professor Chiehyeon Lim</i>)<ul style="list-style-type: none">– Smart refrigerator for personalized health management that provide the communication with trainer and competition between user• <i>Semester Awards</i>, 2020 Spring UNIST (GPA of 3.95 / 4.3)	
OTHER PARTICIPATION	<ul style="list-style-type: none">• UNIST AIGS Creative Autonomous Research (<i>Adviser: Professor Chiehyeon Lim</i>)<ul style="list-style-type: none">– Development of model for predicting cat arthritis using behavioral data– Recruiting cat owners and attaching sensors to cats to collect data– Plan to preprocess data, create new feature, build artificial intelligence suitable model for time-series data, pattern recognition, and analysis• UNIST-POSTECH-KAIST Datascience Competition <ul style="list-style-type: none">– Forecasting and decision-making about shale gas productionIn midterm evaluation, placed 6th out of 38 teams• Korea University Student Industrial Engineering Project Competition Host: Korean Institute of Industrial Engineers (KIIE) (<i>Adviser: Professor Chiehyeon Lim</i>)<ul style="list-style-type: none">– Searching for the optimal path for patrol robots for preventing industrial accidents in the manufacturing field• Campus Patent Universiade Host: Korean Intellectual Property Office (KIPO) (<i>Adviser: Professor Chiehyeon Lim</i>)<ul style="list-style-type: none">– Intelligent CCTV, patrol robot monitoring-based dangerous behavior recognition model, and solution to prevent industrial accidents– Focusing on blind spot prevention, accident type, manufacturing field	Nov. 2020 – Current Oct. 2021 – Current Oct. 2021 Apr. 2021 – Oct. 2021

PUBLICATIONS**Short Stories Book**

김선욱 외 8인 공저. “흔들리며 피다”. 『별이 탄생하는 순간』. 글ego (2021). p133-166. [\[url\]](#)

SKILLS

- **Programming Languages:** Python, L^AT_EX(Advanced), R, C/C++ (Novice)
- **Python Libraries:** Pandas, Numpy, Scikit-learn, Tensorflow, Keras, Pytorch, Pycaret, etc.
- **Languages:** Korean (Native), English (Novice), Japaneses (Moderate)
- **Tools:** Clip Studio, Photoshop, Illustrator, Indesign

**EXTRACURRICULAR
ACTIVITIES**

HeXA, Programming Society of UNIST, *Executive Member* Sep. 2020 – Current
brAIns, Artificial Intelligence Society of UNIST, *Regular Member* Jan. 2021 – Current
WE:TH U, Undergraduate Student Council of UNIST, *Legal Support TF Member* Sep. 2021 – Current
Graphos, Arts Club of UNIST, *Regular Member* Sep. 2020 – Current

COURSE WORKS**Design and Human Factors Engineering**

- [DES231] Design Knowledge and Skills Autumn, 2021
 - [DES232] 3D CAD Autumn, 2021
 - [BME222] Introduction to Human Factors Engineering Spring, 2021
 - [MEN455] 3D Printing Spring, 2021
 - [HFE205] Physical Ergonomics Autumn, 2020
 - [BME211] Introduction to Biomedical Engineering Spring, 2020
 - [045.012*] Introduction to Psychology Winter, 2020
- *Course of Domestic Exchange Program to Seoul National University

Programming and Industrial Engineering

- [ITP107] Introduction to AI Programming I Spring, 2020
- [ITP117] Introduction to AI Programming II Spring, 2021
- [MGE201] Operation Research I Autumn, 2020
Course to learn mathematical method to optimize such as linear programming
- [IE209] Industrial Operations Management Spring, 2021
Course to learn industrial system problem, solution, process optimization, decision-making
- [IE303] Data Mining Spring, 2021
Course to learn about various data-handling method and AI model
- [IE308] Service Intelligence Autumn, 2021
Course that project-oriented to plan and improve service based on raw data and AI

Mathematical Science

- [MTH111] Calculus I Spring, 2020
- [MTH112] Calculus II Autumn, 2020
- [MTH203] Applied Linear Algebra Autumn, 2020
- [MTH211] Statistics Autumn, 2021
- [CES232] Discrete Mathematics Autumn, 2020

REFERENCES**Chiehyeon Lim**

Associate Professor

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 College of Information and Biotechnology
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