Seonuk Kim

50 UNIST Street, Ulju, Ulsan, Republic of Korea 44919

d02reams@unist.ac.kr ● +82 10 5795 5501 ● 5eonukkim.github.io

SUMMARY

Hope to automate repetitive tasks that occur in the working process on manga and webtoon production using CNN or GAN. Know how to use a graphic tablet, and be interested in UX/UI and improvement of creative support tools for comic. My Goal is applying various backgrounds such as web design, 3D modeling, and cel shading to comic creation.

EDUCATION

Ulsan National Institute of Science and Technology (UNIST)   **Ulsan, Korea**

B.Sc. Candidate in *Industrial Engineering* and *Design*   *Mar 2020 - Present*

HONORS AND AWARDS

- **Student Paper Honorable Mention Award,** 2022 Spring DSUS, 2022
- *Excellence Prize from IEEE*, IEEE Quiz Contest KOREA, 2022
- *Silver Prize*, UNIST-POSTECH-KAIST Data Science Competition, 2021 [article]
- *Gold Prize*, Lee Soo Hyun 20th Anniversary Book Review Contest, 2021 [article]
- *Special Prize*, UNIST Algorithm Programming Contest Uni-CODE, 2020
- *Excellence Prize from Samsung Electronics*, Campus Patent Universiade, 2020 [article]

PUBLICATION

[C1]   Seonuk Kim, and Kyungho Lee. (2022). "A Study on the Use of AI as Creative Support Tool for Line Drawing in Manga Production." in Proceeding of *the 2022 Spring Korea Society of Design Studies (KSDS) Conference* (pp. 278-279) **Student Paper Honorable Mention Award**

RESEARCH EXPERIENCE

Expressive Computing Lab, UNIST   **Ulsan, Korea**

Research Intern   *Dec 2021 - Present*

Advisor: Professor Kyungho Lee

- **Study on AI-based Manga Production Support Tool improvement.** Built pipeline with SOTA models to take analog or digital rough sketches as input, pencil-style line drawing and automatic shading as output. **Peer-reviewed paper accepted at KSDS Conference.**
- *Industry-academia Joint Research with LG H&H.* Preprocessed segmented images. Configured image style transfer pipeline. Created conda environment and tried to make Docker container & image. Produced and handed over set-up manual.
- *Industry-academia Joint Research with BBBKorea.* Transcribe conversation voice files consist of 20 languages to text files using AWS S3 & transcribe service.

Service Engineering & Knowledge Discovery Lab, UNIST   **Ulsan, Korea**

Artifical Intelligence Graduate School Creative Autonomous Research Program   *Nov 2020 – Dec 2021*

Advisor: Professor Chiehyeon Lim

Topic: *Development of Behavioral Data-based AI Model for Cat Arthritis Predictive*

- Planned and written research proposal was selected after school screening. Designed control experiment and fabricated measurement device. Preprocessed sensor-based cat behavioral weekly time-series data such as position, acceleration, and angular velocity.

SKILLS

Data Science	NumPy, Pandas, Matplotlib, Seaborn (*Main Language: Python*)
Machine Learning	Tensorflow, Keras, PyTorch, Pycaret, Prophet
Visual Design	Clip Stuido, Photoshop, Illustrator, InDesign
Industrial Design	SolidWorks, Ansys

TEACHING

Ulju The Dream Campus Mentoring Program   **Ulsan, Korea**
Head Mentor, HeXA   *May - Dec 2021*

○ Designed and educated **Basic Python and Algorithm Programming** program for middle school students in Ulju District. [video]

Head Mentor, UNITS   *Sep - Dec 2021*

○ Designed and educated **Let's Build Robot Arm using Arduino and 3D Printer** program for middle school students in Ulju District. [video]

EXTRACURRICULAR

HeXA (Hacker's eXciting Academy), UNIST Programming and Security Society   *Sep 2020 - Present*
President (2022-Present) / Executive Member (2021-2022) / Regular Member (2020)

○ Bus HeXA Project in progress now.
○ Studied basic Linux, C++, vim, Git, Computer Vision, and Style Transfer.
○ Participated in UNIST-POSTECH-KAIST Data Science Competition as Team JORDY Leader. *Silver Prize*

brAIns (brew AI neo scientist), UNIST Artificial Intelligence Society   *Jan 2021 - Present*
Executive Member (2022) / Regular Member (2021)

○ Posted Essay about Style Transfer at brAIns Blog [essay]
○ Data Preprocess, Prediction, and Visualization with Titanic Kaggle Competition
○ GAN Paper implementation using MNIST dataset

OTHERS

○ Cross-registered course at Korea Advanced Institute of Science and Technology (KAIST), Winter 2021
  • Special Topics in Science of Law: Family, Property and Law
○ Cross-registered course at Seoul National University, Winter 2020
  • Introduction to Psychology

REFERENCES

Kyungho Lee
Assistant Professor
Tel: +82 52 217 3034 (Work)
Email: kyungho@unist.ac.kr
www.klee141.com
Dept. of Design
UNIST

Chiehyeon Lim
Associate Professor
Tel: +82 52 217 3112 (Work)
Email: chlim@unist.ac.kr
service.unist.ac.kr
Dept. of Industrial Engineering & Artificial Intelligence Graduate School
UNIST

Sungbin Lim
Assistant Professor
Tel: +82 52 217 3206 (Work)
Email: sungbin@unist.ac.kr
sites.google.com/view/sungbin
Dept. of Industrial Engineering & Artificial Intelligence Graduate School
UNIST

Last Updated: August 1, 2022