# **CHAERIN KONG**

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# RESEARCH INTEREST

Machine Learning, Computer Vision, Probabilistic Modeling

# **EDUCATION**

# SEOUL NATIONAL UNIVERSITY

Seoul, Korea

M.S. candidate, Department of Intelligence and Information

Sept. 2021 – Present

Advisor: Prof. Nojun Kwak, GPA: 4.1/4.3

#### SEOUL NATIONAL UNIVERSITY

Seoul, Korea

Bachelor of Business Administration and Science in Statistics

Mar. 2015 - Aug. 2021

Summa cum laude, GPA: 4.11/4.3

# **PUBLICATIONS**

- J. Jang\*, C. Kong\*, D. Jeon, S. Kim, N. Kwak, "Unifying Vision-Language Representation Space with Single-tower Transformer", Association for the Advancement of Artificial Intelligence (AAAI 2023), Feb. 2023. (\* equal contributions)
- C. Kong, D. Jeon, O. Kwon, N. Kwak, "Leveraging Off-the-shelf Diffusion Model for Multi-attribute Fashion Image Manipulation", Winter Conference on Applications of Computer Vision (WACV 2023), Jan. 2023.
- J. Jang, S. Kim\*, KY Yoo\*, C. Kong, J. Kim, N. Kwak, "Self-distilled Self-supervised Representation Learning", Winter Conference on Applications of Computer Vision (WACV 2023), Jan. 2023
- Y. Song, C. Kong, S. Y. Lee, N. Kwak, J. Lee, "Towards Efficient Neural Scene Graphs by Learning Consistency Fields", British Machine Vision Conference (BMVC 2022), Nov. 2022.
- C. Kong, J. Kim, D. Han, N. Kwak, "Few-shot Image Generation with Mixup-based Distance Learning", European Conference on Computer Vision (ECCV 2022), Oct. 2022.
- **C. Kong**, N. Kwak, "Conservative Generator, Progressive Discriminator: Coordination of Adversaries in Incremental Few-shot Image Synthesis", *under review*

# RESEARCH EXPERIENCE

# SNU, MACHINE INTELLIGENCE AND PATTERN ANALYSIS LAB

Seoul, Korea

Graduate Student Researcher

Sept. 2021 – Present

- Published a paper on few-shot image synthesis to ECCV that explores pretraining-free image generation with only a handful of training images.
- Proposed a novel framework for incremental few-shot learning of generative models that tackles overfitting and catastrophic forgetting with sensible role allocation in GAN.
- Led weekly seminars on self-supervised learning, neural rendering and continual learning.

# NAVER, LANGUAGE AND VISION TEAM

SeongNam, Korea

Research Intern Apr. 2022 – Sept. 2022

- Headed research projects on text-driven image editing and modality-agnostic vision-language representation learning.
- First-authored two papers, each accepted to AAAI and WACV.
- Provided thorough technical survey of recent advances in data-efficient 3D scene rendering.

#### KAIST, DATA AND VISUAL ANALYTICS LAB

SeongNam, Korea

Research Intern Mar. 2021 – Apr. 2021

• Conducted experiments for a research project on image outpainting, including various baselines whose codebases are based on TensorFlow and PyTorch.

#### SNU, MACHINE INTELLIGENCE AND PATTERN ANALYSIS LAB

Seoul, Korea

Research Intern

Jan. 2021 - Feb. 2021

• Spearheaded a team project on animation frame interpolation from data preparation to modeling and evaluation.

# ARTIFICIAL INTELLIGENCE INSTITUTE OF SNU (AIIS)

Seoul, Korea

Research Intern

Jul. 2020 - Aug. 2020

• Proposed a novel technical indicator optimization framework based on attention mechanism and verified its advantages with systematic backtesting.

### PROFESSIONAL EXPERIENCE

**BEMYPET** Seoul, Korea

**Operations Manager Intern** 

Dec. 2019 - Jan. 2020

- Enhanced customer acquisition and retention by KPI monitoring with Google Analytics.
- Assisted service (web) development to add customer-oriented features to the platform.

#### **WOOWA BROTHERS**

Seoul, Korea

Data Analyst Intern

Sept. 2019 - Nov. 2019

- Analyzed customer retention and churn rate with respect to total delivery time.
- Presented data analytics reports that laid foundations for a new delivery fee charge system.

# MILITARY EXPERIENCE

REPUBLIC OF KOREA ARMY BAND, 32ND INFANTRY DIVISION

Sejong, Korea

First Trumpet, Squad Leader

Nov. 2016 - Aug. 2018

• Participated in hundreds of military and civil events as lead trumpet and squad leader.

# **SCHOLARSHIPS**

Merit-Based Scholarship (full tuition), SNU

Spring 2016, Fall 2018, Spring 2019, Fall 2019

Merit-Based Scholarship (partial tuition), SNU

Spring 2015, Fall 2015, Fall 2020

# **TECHNICAL SKILLS**

- Language: Korean (native fluency), English (full professional proficiency, TOEFL iBT: 118/120)
- Computer: Python (PyTorch, TensorFlow, Django), SQL, R, HTML, CSS

# EXTRA CURRICULAR

•	ELICE (MOOC), Python / Machine Learning / Statistics Instructor	Jul. 2021 – Jul. 2022
•	DACON Overlapped Voice Recognition Challenge, 10th place	Aug. 2020
•	DB Group Dream Mentoring, Volunteer Student Mentor	Mar. 2016 – Aug. 2016
•	SNU Debate Contest, 1st place	Oct. 2015
•	SNU Drama Club, Member (Lead Actor, Stage Designer)	Mar. 2015 – Nov.2016
•	SNU Football Club Armada, Member (Left Wing MF)	Mar. 2015 – Aug.2016
•	GFN Korean English Debate Contest, 2 <sup>nd</sup> place	Sept. 2013