

YEON-JI SONG

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EDUCATION

Seoul National University (SNU)

Ph.D in Interdisciplinary Program in Neuroscience

- Advisor: Byoung-Tak Zhang
- Computer Vision, Unsupervised Representation Learning, Video Understanding

2021.09 – Present

Seoul, South Korea

Hong Kong University of Science and Technology (HKUST)

B.Eng. in Electronic and Computer Engineering

2017.09 – 2021.05

Clear Water Bay, Hong Kong

PUBLICATIONS

Sparse-Controlled Gaussian Splatting from Blurry Images

Yeon-Ji Song, Byoung-Tak Zhang*

In progress, to be submitted

Unsupervised Dynamic Video Prediction with Object-Centric Kinematics

Yeon-Ji Song, Suhjung Choi, Jaein Kim, Jin-Hwa Kim*, Byoung-Tak Zhang*

Under review

Continuous SO(3) Equivariant Convolution for 3D Point Cloud Analysis

Jaein Kim, Heebin Yoo, Dong-Sig Han, Yeon-Ji Song, Byoung-Tak Zhang*

The 18th European Conference on Computer Vision (ECCV) 2024

Learning Object Appearance and Motion Dynamics with Object-Centric Representations

Yeon-Ji Song, Hyunseo Kim, Suhjung Choi, Jin-Hwa Kim*, Byoung-Tak Zhang*

NeurIPS 2023 workshop on Causal Representation Learning

On Discovery of Local Independence over Continuous Variables via Neural Contextual Decomposition

Inwoo Hwang, Yunhyeok Kwak, Yeon-Ji Song, Byoung-Tak Zhang*, Sanghack Lee*

In Proceedings of CLeaR 2023

WORK EXPERIENCE

PitchDaily

Part-time Artificial Intelligence Intern

- Created text summarization module using KoAlpaca.

2023.03 – 2023.11

Seoul, South Korea

Biointelligence Lab

Undergraduate Research Intern

- Designed and conducted research on Robotics and Reinforcement Learning.

2020.12 – 2021.04

SNU

Surromind (SNU)

Artificial Intelligence Research Engineer

- Designed and implemented a Deep Learning model for Pose Estimation based on Detectron2.

2020.07 – 2020.10

Seoul, South Korea

Robocore AI

Robotics Software Engineer

- Created new solutions for temi robots, combining IOT products and the mobility of temi.
- Performed GUI design, system design and solved real-life customer request with AI solution.

2020.06 – 2020.07

Science Park, HongKong

Codecrain Inc.

Full-stack Web Developer

- Developed frontend web application along with a senior developer using React.js.
- Implemented React.js and Node.js to enhance functionality and user experience.

2019.06 – 2019.09

Seoul, South Korea

PROJECTS

Robot Navigation based on Reinforcement Learning <i>Final Year Project</i> <ul style="list-style-type: none">Title: Map-based Robot Navigation and Path planning with Deep Reinforcement LearningProposed ML and RL based algorithm for autonomous navigation in a cluttered environment.	2020.05 – 2021.05 HKUST
Bundleport <i>CTO & Logistics Manager</i> <ul style="list-style-type: none">Created a full-stack web application using Node.js, MySQL, HTML5/CSS3, and JavaScript.Developed on cloud server using AWS S3, EC2, Elastic Beanstalk and Cloudfront.	2018.05 – 2020.05 HKUST
HKUST Robotics Team <i>Robotics Software Engineer</i> <ul style="list-style-type: none">Designed and implemented algorithms for processing data from Camera and LiDAR sensors.	2018.09 – 2018.12 HKUST
HKUST ROV Community Project <i>Activity Assistant</i> <ul style="list-style-type: none">HKUST course code: ENGG2900D	2019.02 – 2019.05 HKUST

TEACHING EXPERIENCE

Multimodal Deep Learning Theories and Applications	2024.09 – 2024.12
POSCO DX 2024 AI Youth Challenge	2024.06 – 2024.08
POSCO DX 2023 AI Youth Challenge	2023.06 – 2023.08
Artificial Intelligence	2022.03 – 2022.06
New Computer Technology (SNU x HKUST)	2022.03 – 2022.06

AWARDS AND CERTIFICATES

Best Presentation Paper Award @KCC2024	2024
RoboCup@Home DSPL 2nd Place	2022
HKUST Admission Scholarship	2017