HYUNJAE WOO

hjwoo@umich.edu ‖ linkedin.com/in/hjwoo ‖ jaejaywoo.github.io

EDUCATION

University of Michigan, Ann Arbor *Sep 2021 - (expected) Apr 2023*
M.S.E in Computer Science and Engineering

University of Michigan, Ann Arbor *Sep 2013 - Dec 2019*
B.S.E. in Computer Science and Engineering

Relevant Courses: Machine Learning, Artificial Intelligence, Computer Vision, Reinforcement Learning, Data Structure & Algorithm, Computer Networks, Computer Security

PUBLICATION

Meta Reinforcement Learning with Autonomous Inference of Subtask Dependencies
Sungryull Sohn, **Hyunjae Woo**, Jongwook Choi, Honglak Lee
In the *International Conference on Learning Representations (ICLR)*, 2020 [arXiv]

RESEARCH/WORK EXPERIENCE

University of Michigan, Ann Arbor, *Undergrad Research Assistant* *Oct 2017 - Dec 2020*
Advisors: Honglak Lee and Satinder Singh

- Published a research paper in **ICLR 2020** on Meta Reinforcement Learning (RL).
- Setup research experiments and implement baselines for SC2LE (StarCraft II Learning Environment).

U of Michigan Transportation Research Institute, *Undergrad Assistant* *Jan 2019 - May 2019*

- Developed LiDAR dataset reader in C# that uses Pcap.Net to convert TCP packets into CSV files.
- Collected various LiDAR datasets for each different road lane materials and weather conditions.

Seoul National University, *Summer Research Intern* *May 2017 - Aug 2017*
Advisor: Gunhee Kim

- Implemented data pipeline for image captioning baseline models (i.e. seq2seq, im2txt).
- Implemented data preprocessing for YFCC100M and Ubuntu Corpus datasets

SOFTWARE PROJECTS

Transfer Learning for Fire Detection
Collected a custom fire dataset to detect the instances of fire in the video and fine-tuned YOLO-v2 model using the pre-trained weights and the dataset.

Network Bandwidth Measurment Command Line Tool
Implement a command line tool called *iPerfer* that measures IP network bandwidth using C++ and tested the tool on a custom network topology using Mininet.

Recycle.it - Eco-friendly Camera-based Web App
Developed a eco-friendly, camera-based progressive web application using React.js. The application scans a barcode of a product and informs the user with helpful recycling information.

AWARDS AND HONORS

University Honors *2016*
Dean's Honor List *2013, 2016*
George Washington University SEAS Engineering Awards *2013*

TECHNICAL SKILLS

Programming Languages Python, C/C++, Javascript, HTML, CSS
Skills & Softwares Linux/Unix, Git, PyTorch, Tensorflow