

HYUNJAE WOO

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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 Research 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 Measurement 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