

# 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, Linear Algebra

## 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 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