YOUNGWOONG CHO

Homepage | https://youngwoong-cho.github.io/

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EDUCATION

THE COOPER UNION | B.E. in Mechanical Engineering | Minor in Computer Science | New York, NY

Class of 2023 | Engineering GPA 4.00/4.00 | Norman Perry Internship Fund ($1000) | Half Tuition Scholarship & Innovator's Merit Award

RELEVANT COURSES

ECE-475 Frequentist Machine Learning | ECE-471 Machine Learning Architecture | ECE-264 Data Structure & Algorithms | ME-412 Autonomous Mobile Robots | ME-351 Feedback Control Systems | ESC-251 Systems Engineering | ME-352 Process Control Laboratory

PROFESSIONAL EXPERIENCE

Seoul Robotics | Machine Learning Research Engineer Intern | Seoul, Republic of Korea — May 2021 – Present

Developed an integrated evaluation tool for the assessment of object detection, velocity estimation, and tracking performances

Conducted research on the neural networks for the odometry estimation using LiDAR outputs

CU@HOME | Arduino Library & Python GUI Developer | The Cooper Union — November 2020 – May 2021

Design and develop Arduino libraries and python GUI for CU@Home Kits

Github link: https://github.com/CooperControlsLab/CU-At-Home_feedback_controls/tree/feature/SpeedOfSound_YoungWoong

SEOUL NATIONAL UNIVERSITY | Interactive & Network Robotics Lab | Seoul, Republic of Korea — May 2020 – July 2020

Cooperative Grasping Control of Multiple Mobile Manipulators with Obstacle Avoidance

SELECTED RESEARCH & PROJECTS

DECAY | ECE-471: Machine Learning Architecture — Spring 2021

Using pytorch, trained a neural network model of *CycleGAN* that predicts the organic biodegradation of an inorganic object.

Github link: https://github.com/YoungWoong-Cho/Decay

RECEIPT GRAND TOTAL EXTRACTOR — August 2020 - October 2020

Developed a simple receipt extractor application using pytesseract-OCR and OpenCV, and deployed the app using Google Cloud Run.

Github link: https://github.com/YoungWoong-Cho/ReceiptGrandTotalExtractor

AUTONOMOUS MOBILE ROBOTS | ME-412: Autonomous Mobile Robots — Fall 2020

Developed a software in python and C++ for an autonomous mobile robot that operates with subsumption architecture, LIDAR, ToF camera.

Website link: https://youngwoong-cho.github.io/files/ME412%20Final%20Paper%20FBRD.pdf

ACTIVITIES & MEMBERSHIPS

COOPER UNION IGVC | Member | The Cooper Union — March 2021 – May 2021

Member of Technical Team

KOREAN ASSOCIATION OF COOPER UNION | Vice President | The Cooper Union — Fall 2020 – Spring 2021

Vice President of KACU(Korean Association of Cooper Union)

PHYSICS TEACHING ASSISTANT | The Cooper Union — Fall 2020 – Spring 2021

Assist professors and students for Intro Physics Laboratory and Physics III: Optics & Modern Physics

TAU BETA PI | Member — November 2020 - Present

Member of TAU BETA PI, an engineering honor society

SKILLS

Programming Languages/Interpreters — **Python**, **C#**, **C++**, C, JAVA, MATLAB, ROS, HTML, bash

IDE/Editors — VS Code , Jupyter notebook, Spyder, PyCharm, Microsoft Visual Studio, Android studio, Arduino IDE, vim

Frameworks — pytesseract, scikit-learn, keras, pytorch, OpenAI Gym, pandas, openCV(cv2), flask, numpy, scipy, sympy, matplotlib