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 2022 | Engineering GPA 4.0/4.0 | 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

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

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

Website link: https://youngwoong-cho-receipt-extractor-7ou4ej4gaq-ue.a.run.app/

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

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

Design an autonomous mobile robot that operates with subsumption architecture, LIDAR, and ToF camera.

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

BIPEDAL ROBOT PID CONTROL — September 2020 – Present

Design a PID controller that can maintain the two-wheeled robot vertically upward, capable of counteracting the external disturbance.

Github link: https://github.com/YoungWoong-Cho/Bipedal-Robot-PID

PROFESSIONAL EXPERIENCE

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

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

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

ACTIVITIES & MEMBERSHIPS

COOPER UNION MOTORSPORTS FSAE | Member | The Cooper Union — August 2020 – Present

DAQ in Electronics subsystem teams | Steering performance in Vehicle Dynamics subsystem teams

KOREAN ASSOCIATION OF COOPER UNION | Vice President | The Cooper Union — August 2020 – Present

Vice President of KACU(Korean Association of Cooper Union)

PHYSICS TEACHING ASSISTANT | The Cooper Union — Fall 2020 - Present

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**, **Java**, C, **C#**, **C++**, MATLAB, ROS, HTML, bash

IDE/Editors — Jupyter notebook, Spyder, VS Code, 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

CAD — SolidWorks, AutoCAD, Onshape, Rhino, Autodesk Revit