

YOUNGWOONG CHO

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EDUCATION

THE COOPER UNION, New York, NY

Bachelor of Engineering in Mechanical Engineering | Class of 2022 | Cumulative GPA 3.9/4.0 | Engineering GPA 4.0/4.0

Korean Minjok Leadership Academy, Hoengseong, Gangwon, Republic of Korea

Class of 2015 | Cumulative GPA 3.8/4.0

RELEVANT COURSES

Feedback Control Systems | Process Control Laboratory | Automotive Engineering Fundamentals | Autonomous Mobile Robots | Frequentist Machine Learning | Data Structure & Algorithms | Systems Engineering | Design & Prototyping

SELECTED RESEARCH & PROJECTS

AUTOMOTIVE ENGINEERING: PROJECT DELIVERABLE | ME-405: Automotive Engineering Fall 2020

Design a modern automobile, covering aspects of prime movers, aerodynamics, brakes, tires, steering, transmission, suspension and handling, chassis, and advanced hybrid powertrain concepts.

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

Design an autonomous mobile robot that can roam around, detect target, and shoot a ping-pong ball to the target.

SPLUX | 1006 Games December 2019 – May 2020

Made a single player and multiplayer Tetris game using Unity. SPLUX is a Tetris-based game in which blocks come down from every four directions. In multiplayer mode, players can complete the rows to score, while invading other players' zones to sabotage.

INVERSE PENDULUM USING PID CONTROL September 2020 – Present

Design a PID controller that can maintain the inverse pendulum vertically upward. The inverse pendulum can counteract the external disturbance.

SELECTED TOPICS IN MECHANICAL ENGINEERING | ME-363: Independent Study Spring 2020

Set up the equations of motion to predict the motion of a drone with a sling load and simulate the motion using Python.

EXPERIENCE

REPUBLIC OF KOREA ARMY: 1st ENGINEER BRIGADE | Paju, Republic of Korea June 2017 – February 2019

Driver, Mechanic | Capable of maneuvering and repairing military vehicles, including K-511 and K-711

SEOUL NATIONAL UNIVERSITY | Seoul, Republic of Korea May 2020 – July 2020

Intern at Interactive & Network Robotics Lab | Cooperative Grasping Control of Multiple Mobile Manipulators with Obstacle Avoidance

ACTIVITIES

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

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

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

Vice President of KACU(Korean Association of Cooper Union)

PHYSICS TEACHING ASSISTANT | The Cooper Union Fall 2020

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

SKILLS

Programming Languages C, C++, C#, Java, Python, MATLAB

IDE Jupyter notebook, Spyder, Visual Studio, Android studio, Cygwin, Arduino IDE, Linux terminator

CAD SolidWorks, AutoCAD, Onshape, Rhino, Autodesk Revit

Other Softwares Unity, Arduino, Blender, Rapid Harness, Microsoft Office, Adobe Photoshop, Adobe Premiere, Sony Vegas

Skills Laser Cutting, 3D Printing, Soldering, Woodcraft, Metal Casting, Milling, Drilling, Leadership