Yongseok Kwon

1839 Shirley Ln., Ann Arbor, MI 48105
(+1) 734-882-9135 · kwonys@umich.edu · https://kwonyos.github.io

Education

University of Michigan, Ann Arbor, MI
M.S.E in Mechanical Engineering — Aug. 2020 – Present

Ulsan National Institute of Science and Technology (UNIST), Ulsan, Republic of Korea
B.S. in Mechanical and Aerospace Engineering, Human Factors Engineering — Mar. 2016 – Feb. 2020
- Honors: *Summa Cum Laude*
- Thesis: *Decoupling Mechanism for Tendon-Driven Robot Leg*

University of California, Irvine, CA
Exchange Student in Mechanical and Aerospace Engineering — Jun. 2018 – Aug. 2018

Research Experience

Locomotor Control Systems Lab, University of Michigan — Jan. 2021 – Present
Graduate Student Researcher — Advisor: Prof. Robert D. Gregg IV
- Tested the extended Kalman filter-based gait state estimator on the open-source robotic leg
  –Incorporated task variables on the gait state variable
  –Built two different measurement model of gait analysis with basis function and neural network

Bio-Robotics and Control (BiRC) Lab, UNIST — Mar. 2019 – Jul. 2019
Undergraduate Research Intern — Advisor: Prof. Joonbum Bae
- Assisted cooperative robot in tendon-driven system project
- Dealt with components of hydraulic robot; manipulated electric circuit, assembled parts, and examined encoder

Teaching Experience

Teaching Assistant on Cognitive Science, UNIST — Spring 2018, Fall 2018
- Graded quizzes, helped write exams, and contributed to curriculum design

Honors & Awards

National Science and Engineering Scholarship, Korea Student Aid Foundation (KOSAF) — 2018 – 2019
- *Full-tuition scholarship for the last two years of undergraduate studies*

Living Scholarship, UNIST — 2016 – 2019
- *Received $110 of stipend for a month*

Semester Award, UNIST — 2016 – 2019
- *Recognized for superior semester grades*

Overseas Studies Scholarship, UNIST — 2018
- *Received $4,200 as a financial support for a summer session at UC Irvine*

Academic Performance Scholarship, UNIST — 2016 – 2017
- *Full-tution scholarship for the first two years of undergraduate studies*

Skills

Programming	MATLAB & Simulink, Python, C++, LabView, JavaScript
Software	CATIA, SolidWorks, ANSYS, 3DSSPP
Others	HTML, CSS, LaTeX

Technical Courses

Graduate Linear System Theory, Intermediate Dynamics, Machine Learning, Math for Robotics, Nonlinear Systems & Control, Robot Kinematics & Dynamics

Undergraduate Solid Mechanics, Thermodynamics, Fluid Mechanics, Dynamics, Mechanical Drawing & Lab, Heat Transfer, Dynamic Systems & Control, Manufacturing Processes & Lab, Intro. to Electric-Electronic Engineering, Vibration, Intro. to Robotics, Numerical Analysis, Mechanical Engineering Lab , Machine Element Design, UAV Flight Control & Simulation, Intro. to Finite Element Method, Intro. to MEMS, Science of Human Behavior, Cognitive Science, Color Science & Engineering, Physical Ergonomics, Brain & Human Behavior, Sensation & Perception, Decision making & the Brain, Safety Engineering, Calculus, Differential Equations, Applied Linear Algebra, Engineering Programming, Intro. to AI Programming