KWANGWOO(EMMET) YEUM

https://kyeum.github.io

PERSONAL

Address: Hillstate Prujio Apt. 112-602, Suyeong-ro 345, Busan, Republic of Korea
Mobile: +82)1024018249 / E-mail: evolvcor@gmail.com
Served military service in the Republic of Korea: 2012.10 - 2014.07

EDUCATION

Seoul National University of Science and Technology; SEOULTECH   03. 2012 – 02. 2019
(Seoul, South Korea)
Bachelor of Science in Mechanical Design and Automation Engineering **(2019)**
- GPA: 4.19/4.50 (Major: 4.21/4.50), Ranked Top 3 of 2019 Graduates
  U.S Adjusted GPA: 3.89/4.0 (with exchanged student Pass GPA: 3.73/4.0)
- Graduation Thesis: Design and Control of Humanoid Ski Robot Platform

Karlsruhe University of Applied Science (Karlsruhe, Germany)   02. 2016 – 02. 2017
Abroad Semester as an Exchanged Student
- 1 year abroad experience in Karlsruhe, Germany
- 5 months Internship semester at Robert Bosch Buhlertal (Germany)

INDUSTRY EXPERIENCE

Korea Institute of Science and Technology; KIST (Seoul, South Korea)   Present
Bionics Department Researcher
- Research in soft exoskeleton wearable robot for the stroke patients
- New mechanism wire analysis including shape memory alloy(SMA) for the soft devices
- Signal processing in human bio data

Apple Inc (Cupertino, US)   09. 2018 – 02. 2019
Product Design Intern
[confidential]
- Research in the industrial accessory products
- Design For Assembly(DFA), Design For Manufacturing(DFM) in product design

Robert Bosch GmbH (Buhl, Germany)   10. 2016 – 02. 2017
Predevelopment Design and Software Intern
[confidential]
- Develop real environment simulation programs for predevelopment products
- Design and test prototypes

RESEARCH EXPERIENCE

PyeongChang Olympic 'Ski Robot Challenge' (PyeongChang, South Korea) 04. 2017 – 03. 2018
Team leader at the government research
- Design double four bar link mechanism in ski robot's leg
- Design main software system and path planning algorithms
  o Balancing and Motion Planning with ski-based inverse kinematics and ZMP control
  o Flag detection with Stereo Camera and Lidar

Robot and DSP; RND Laboratory (SEOULTECH)   09. 2014 – 02. 2017
Lab Assistant and Research Assistant
- Research on humanoid robotics
- Design control algorithms with camera vision, human kinematics in embedded system

- Join in many competitions: ABU Robocon(Pacific Asia), International Robot Contest(South Korea), Robogames(USA), SteamCup(South Korea), RobotJapan(Japan)

RELEVANT SKILLS

Mechanical Engineering	CAD (NX10.0, Creo3.0) · FEA(NX-Nastran) · AUTOCAD
Electrical Engineering	MCU (ARM, AVR) · ORCAD · Microvision
Computer Science	Visual C++, C, Open CV · Python · Matlab · Tensorflow
Analysis	JMP(SAS) · R(Programming)
Machining	3D printing · Mill · Lathe · Laser cutter (Device TA)

THESIS AND PUBLICATIONS

Institute of Control, Robotics and Systems; ICROS (South Korea)	05. 2018

Design and control of humanoid ski robot platform (369 – 370, 2pages), ICROS (Korea)

AWARDS AND HONORS

2018 5th grades in PyeongChang Olympics Ski Robot Challenge	04. 2018
2018 Managed team gold medals at Robogames in the USA	05. 2018
2017 Managed team gold medals at Robogames in the USA	05. 2017
2016 Gold medals at Robot Open Academy in SEOULTECH	01. 2016
2015 International Robot Contest South Korea President's Award in Korea	10. 2015
2015 Steam Cup 4th Prize in Korea	05. 2015

SCHOLARSHIPS

Total 20,716,640₩ (Korean Won) at University Honor Scholarship	2012 – 2017
Total 5,000,000₩ at International Robot Contest	11. 2015
Total 5,000,000₩ Research Assistant at Ski Robot Challenge	02. 2018
Total 1,200,000₩ at Robot Open Academy	03. 2017

HOBBIES

Editing Videos/Films · Traveling · Swimming · Application Design · Track Car Racing

LANGUAGES

Korean (Native)	Native
English (Advanced)	Standardized Test Score: GRE – Verbal 159, Quant 169
German (Basic)	College standardized courses: A1.1, A1.2, A2
Japanese (Basic)	Highschool standardized courses

REFERENCE

Dr. Yeong Seok Kim
Professor
Department of Mechanical Engineering in Seoul National University of Science and Technology
Email: kys0101@seoultech.ac.kr

Dr. Dong Hwan Kim
Professor
Department of Mechanical Engineering in Seoul National University of Science and Technology
Email: dhkim@seoultech.ac.kr

Dr. Choong Hyun Kim
Senior Researcher
Department of Bionics in the Korea Institute of Science and Technology
Email: chkim@kist.re.kr   Date: 2019. 12. 01
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