KWANGWOO(EMMET) YEUM

https://kyeum.github.io

PERSONAL

Address: 4616, 4067 Miramar Street, La Jolla, CA 92092
Mobile: +1)8582818910 / E-mail: evolvcor@gmail.com/kyeum@ucsd.edu
Served military service in the Republic of Korea: 2012.10 - 2014.07

EDUCATION

University of California, San Diego (La Jolla, USA)   Present
Mechanical and Aerospace Engineering
- GPA: 4.00/4.00

Seoul National University of Science and Technology (Seoul, South Korea)   03. 2012 – 02. 2019
Bachelor of Science in Mechanical Design and Automation Engineering **(2019)**
- GPA: 4.19/4.50 (Major: 4.21/4.50 – Cum Laude)
  U.S Adjusted GPA: 3.89/4.0
- 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)   11. 2019 – 09. 2020
Bionics Department Researcher
- Research in soft exoskeleton wearable robot for the stroke patients with SMA spring/sheets analysis
- Build the real-time DAQ system with UWB, FSR, EMG, Motion Capture
- Gait Analysis with the Human Signal DAQ system and RNN

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

Robert Bosch GmbH (Buhl, Germany)   10. 2016 – 02. 2017
Predevelopment Design and Software Intern
[confidential]
- Develop realtime simulation programs for predevelopment products
- Design and test the 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 structure
- Design main software-control 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 competitions: ABU Robocon(Pacific Asia), International Robot Contest(South Korea), Robogames(USA), SteamCup(South Korea), Robot Japan(Japan)

RELEVANT SKILLS

Mechanical Engineering	CAD (NX11.0) · FEA(Abaqus, Ansys) · AUTOCAD
Electrical Engineering	MCU (ARM, AVR) · ORCAD · uVision
Computer Science	Visual C++, C, C# · Open CV · Python · Matlab
Analysis	R(Programming) · Tensorflow
Machining	3D printing · Mill · Lathe · Laser cutter

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 Team gold medals at Robogames in the USA	05. 2018
2017 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

SCHOLARSHIPS

Total 20,716,640₩ (Korean Won) at University Honor Scholarship	2012 – 2017
Total 10,000,000₩ at International Robot Contest and Ski Robot Challenge	11. 2015
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

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Date: 2020. 12. 18
Signature