

KWANGWOO(EMMET) YEUM

<https://kyeum.github.io>

PERSONAL

Address: Hillstate Prujio Apt. 112-602, Suyeong-ro 345, Busan, Republic of Korea

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Nationality: Republic of Korea / Born: 26 May 1992, in Busan, Republic of Korea

Served military service in the Republic of Korea: 2012.10 ~ 2014.07

EDUCATION

03. 2012 – 03. 2019 **Seoul national university of science and technology (Seoul, South Korea)**

- Bachelor of Science in Mechanical system design and engineering
- Graduated with GPA :4.19/4.50 (Major GPA: 4.21/4.50)
- U.S Adjusted GPA: 3.91 / 4.0 (with Exchanged student GPA: 3.84/4.0)
- Thesis: Design and Control of Humanoid Ski Robot Platform

03. 2016 – 02. 2017 **Karlsruhe University of Applied Science (Karlsruhe, Germany)**

- Exchanged student in Mechanical Engineering department
- 6 months Internship curriculum at Robert Bosch Germany

INDUSTRY EXPERIENCE

Present ~ **Korea Institute of Science and Technology (Seoul, South Korea)**

Bionics Researcher

- Research rehabilitative assistant wearable robot for people have a stroke

09. 2018 – 02. 2019 **Apple Inc (Cupertino, US)**

Product Design Intern

[confidential]

- Research in the industrial field related to accessories products
- DFA, DFM in cosmetic accessory products

10. 2016 – 02. 2017 **Robert Bosch (Buhl, Germany)**

Predevelopment Design and Software Intern

[confidential]

- Make simulation environment with Matlab Simulink for product's automation
- Design and test prototypes

RESEARCH EXPERIENCE

04. 2017 – 06. 2018 **PyeongChang Olympic Ski Robot Challenge (PyeongChang, South Korea)**

Government Research

- Manage team as a team leader
- Design hardware of humanoid skiing robot
- Design main software system using MFC based C++
- Design algorithm in flag detecting with stereo camera and ski-based robot movement with inverse kinematics

09. 2014 – 02. 2016 **'R&D' Laboratory (Seoul National University of Science and Technology)**

Lab Assistant and Research Assistant

- Research in humanoid robotics
- Design algorithm with Open CV and open sources
- Participated in Robocon(robot contest in Asia) and International robot contest(Korea), Robogames(U.S)

THESIS AND PUBLICATIONS

05. 2018 Institute of Control, Robotics and Systems (ICROS)
Design and control of humanoid ski robot platform(369 – 370, 2pages), ICROS (Korea)

TECHNICAL SKILLS

| | |
|-------------------------------|---------------------------------------------------|
| Mechanical Engineering | CAD (NX10.0, Creo3.0) • FEA(NX-Nastran) • AUTOCAD |
| Computer Science | Visual C++, C, C# • MATLAB • OPEN CV • OPEN AI |
| Analysis | JMP(SAS) • R |
| Machining | 3D printing • Mill • Lathe |

AWARDS AND HONORS

| | |
|---------------------|-----------------------------------------------------------------------------|
| 05. 2019 – 06. 2019 | 2019 Earned team gold medals at RoboGames in the U.S |
| 05. 2018 – 03. 2019 | 2019 Pyeongchang Olympics 5 th grades in Ski Robot Challenge. |
| 12. 2014 – 10. 2015 | 2015 International Robot Contest 1 st President's prize in Korea |
| 12. 2014 – 05. 2015 | 2015 SteamCup 3 rd Prize in Korea |

SCHOLARSHIPS

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|---------------------|---------------------------------------------------------------|
| 02. 2012 – 02. 2017 | Total 20,716,640₩(Korean Won) at University honor scholarship |
| 02. 2018 – 02. 2018 | Total 1,000,000₩(Korean Won) at Ski Robot Challenge |
| 09. 2015 – 11. 2015 | Total 5,000,000₩(Korean Won) at International robot contest |

LANGUAGES

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|-----------------|-----------------|
| Korean | Native language |
| English | Advanced |
| German | Basic |
| Japanese | Basic |

HOBBIES

| | |
|---------------|------------------------|
| Editing films | Learning new languages |
| Swimming | |

REFERENCE

Dr. YeongSeok Kim

Professor

Department of Mechanical Engineering in Seoul national university of science and technology

Dr. Choong Hyun Kim

Senior Researcher

Department of Bionics in the Korea Institute of Science and Technology

Date : 2019. 10. 15

Signature