# **Yoonsang Kim**

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## RESEARCH INTERESTS

Computer vision, Object recognition, Pose prediction, Human-robot interaction, Cognition, Natural language processing, Machine learning, Autonomous robot

#### **EDUCATION**

Mar. 2010 ~ Feb. 2017

## Soongsil University / Seoul, Korea

*Undergraduate Student (School of Computer Science and Engineering)* 

Bachelor of Science in Engineering, Overall GPA of 3.47 / 4.0 (90.1 / 100)

Mar. 2015 ~ Jul. 2015

# Darmstadt University of Applied Sciences / Darmstadt, Germany

Exchange Student (School of Computer Science)

#### **PROJECTS**

Jun.2016 ~ Dec. 2016

#### Virtual Desktop without an I/O device

Developed as a contestant, under the supervision of Prof. Jeongjin Lee & Sangjun Lee for the Soongsil University Software Competition 2016, Soongsil University, Korea

- Combined mixed reality with a remote desktop and motion recognition to use computer in a virtual reality controlled only by hand
- Used Samsung Gear VR as a display, and a Virtual Graphic Driver for a remote desktop display output, and OpenCV to analyze user's hand gestures

Oct. 2016 ~ Oct. 2016

#### **Airplane Shooting Game**

Developed as an undergraduate exchange student, under the supervision of Prof. Paul Bourke & Team Mentor Susan McKeever for DIT's Global Classroom Class

- Classic airplane game with the objectives of destroying the enemy base and counter-forces
- Collaborated with computer science students from Finland, Korea, and Ireland
- Used Unity5 for the development phase, focused more on the overall documentation process and weekly real-time web meetings

Ian. 2016 ~ Mar. 2016

#### **Dream Palette**

Developed as a contestant, under the supervision of Student Mentor Seungjun Jeong for Microsoft's Imagine Cup 2016, Korea

- Rapid paced game combined with the concept of Subtractive Color Mixing to enhance children's understandings of colors
- Collaborated with students from Computer Graphic Design and Computer Science
- Utilized Unity5 to develop the game, and After Effects and Photoshop to create the images used in the game

Oct.2015 ~ Dec. 2015

#### **Cell Counter**

Developed as a contestant, under the supervision of Prof. Jeongjin Lee for Soongsil University IT·BT Convergence Software Competition 2015, Soongsil University, Korea

- Analyzed cells to simplify the arduous process of cell counting for researchers
- Collaborated with Biomedical Science and Computer Science majors
- Utilized OpenCV and a manual labelling process to analyze the images, and C#(WPF) for the interface of the program

Mar. 2015 ~ Jul. 2015

### **Coding Assignment Submission Website**

Developed as an undergraduate exchange student, under the supervision of Prof. Michael Roth for the Project System Development Class, Darmstadt University of Applied Sciences, Germany

- Allows enrolled students to submit code and provides professors with the status of submission as well as code errors
- Used PHP for the back-end and HTML, CSS, Javascript, jQuery for the front-end

## **PUBLICATIONS**

[1] Yoonsang Kim, Geunyeop Ha, Sangjun Lee. 2017. Flexible Remote Control Application for Virtual Reality using Virtual Graphic Driver and OpenCV. International Journal of Applied Engineering Research(IJAER), Volume 12, Number 19, pp. 8952-8955

[2] Yoonsang Kim, Geunyeop Ha, Dongyeon Kim, Sangjun Lee. 2016. Design and Implementation of Remote Control Application in Virtual Reality Environment using a Virtual Graphic Driver and OpenCV. 2016 KIISE Winter Conference

#### **SCHOLARSHIPS**

Fall.	2016	Award Scholarship for Software Competition, Soongsil University
Winter.	2015	Award Scholarship for IT·BT Software Convergence Engineering Competition, Soongsil University
Spring.	2015	Government Scholarship for ICI-ECP Exchange Student Program, Soongsil University
Fall.	2014	Academic Excellence Scholarship, Soongsil University

## **HONORS AND AWARDS**

Oct.	2016	Dean's Award in Software Competition, Soongsil University
Mar.	2016	National Semi-Finalist in the Imagine Cup 2016, Microsoft
Dec.	2015	Gold Award in IT·BT Software Convergence Engineering Competition, Soongsil University

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RELAT	TED EXTRACU	RRICULAR ACTIVITIES AND EXPERIENCE
Apr.20	16 ~ Dec. 2016	Soongsil University Exchange Student Mentoring Program, Seoul, Korea  Student Mentor for Darmstadt University of Applied Sciences  Helped exchange students to obtain information about and adjust to foreign environments
Oct. 20	16 ~ Oct. 2016	GMV (Global Mobile Vision), Gyeonggi-do, Korea Student Visitor  Interviewed the exhibitors on the potential of Virtual Reality and the trends of Computer Science
Jan. 20	16 ~ Mar. 2016	<ul> <li>Worldwide Student Software Competition (Microsoft Imagine Cup) Team CUBLERS, Seoul, Korea Team leader</li> <li>Participated on the project's design, development phase and presentation</li> <li>Held weekly meetings to share ideas and acquire possible suggestions for modification of the program</li> <li>Adjusted the amount of tasks according to the members' capabilities</li> <li>Gave a presentation at the exhibition booth for an audience</li> </ul>
Oct.201	15 ~ Dec. 2015	Soongsil University Software Competition (IT·BT Convergence Contest) Team CT4, Seoul, Korea Team leader  Participated on the project's design, development phase and presentation Distributed tasks according to members' capabilities

CES (Consumer Electronics show), Las Vegas, United States Ian. 2015 ~ Ian. 2015 Student Visitor

Participated as a visitor and observed the future trends of Computer Science

Soongsil University Soccer Team, Seoul, Korea Jan.2013 ~ Jan. 2014 Captain

Supported the team members

- Managed members to adhere to the coach's tactics
- Apr.2011 ~ Jan. 2013 The 31st Infantry Division Engineering Battalion, Human Resource Division, Gwangju, Korea Financial & Personnel Administrator
  - Supervised monthly salary payment for officers & soldiers
  - Managed human resources
  - Basic infantry training

# **CERTIFICATES & SKILLS**

Language Native in Korean

English proficiency with TOEFL: 110 (27/27/28/28) GRE score (Verbal, Quantitative, Writing): 155 / 163 / 4.0  $\,$ 

German proficiency level (A1: Beginner level)

**Computer** MOS (Microsoft Office Specialist) 2010 Master Certificate

Adobe Photoshop CS6 Certificate

# TECHNICAL SKILLS

Advanced C, C++, Unity5(GameEngine)
Intermediate C#, C++ (MFC / WINAPI), Java

Moderate PHP, Python, Android, JavaScript, HTML, CSS