# **Juyong Kim**

Date of Birth: 21/5/1990

 $248\text{-}35, Sangdae\ 1\text{-}dong, Jinju\text{-}si, Gyeongsangnam\text{-}do, 660\text{-}806, Republic\ of\ Korea$ 

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#### **Education**

Vision & Learning Lab., Seoul National University • Master Student in Computer Science and Engineering • Advisor: Prof. Gunhee Kim	Mar. 2016 – Present
<ul> <li>Seoul National University (GPA: 4.06/4.3 GPA in major: 4.12/4.3)</li> <li>B.S. in Electrical and Computer Engineering(Summa Cum Laude)</li> <li>Received Best Engineering Graduate Student Award</li> </ul>	Mar. 2008 – Feb. 2015
Gyeongnam Science High School  • A special purpose high school for scientifically gifted students.	Mar. 2006 – Feb. 2008

## **Work and Research Experiences**

• Physics Major. 1 year early graduation

#### Vision & Learning Lab., Seoul National University

Sep. 2015 - Present

- Research Assistant and Master student(currently)
- Working on Deep Learning(CNN), under the Supervision of Prof. Gunhee Kim(SNU) and Sungju Hwang(UNIST)
- "SplitNet: Learning to Semantically Split Deep Networks for Parameter Reduction and Model Parallelization", "Taxonomy-Regularized Semantic Deep Convolutional Neural Networks" (See Publications below.)

#### IR-Link, Seoul, Korea

Nov. 2012 - Jul. 2014

- Software Engineer (As alternative military service)
- Mobile Web Application Development / Windows Application Development (See Skills below.)

#### ITWell, Seoul, Korea

Sep. 2011 - Oct. 2012

- Software Engineer (As alternative military service)
- Windows CE Application Development

#### Cyber-Physical Systems Lab., Seoul National University

Jan. 2011 – Sep. 2011

- Undergraduate Researcher on Robotics, Computer Vision, under the Supervision of Prof. Songhwai Oh
- "Actionable Topological Mapping for Navigation Using Nearby Objects" (See Publications below.)

## **Publications**

#### **International Conferences**

- <u>Juyong Kim</u>, Y. Park, G. Kim, S. Hwang, "*SplitNet*: Learning to Semantically Split Deep Networks for Parameter Reduction and Model Parallelization", in *International Conference on Machine Learning (ICML)*, Aug. 2017.
- W. Goo, <u>Juyong Kim</u>, G. Kim, S. Hwang, "Taxonomy-Regularized Semantic Deep Convolutional Neural Networks", in *European Conference on Computer Vision (ECCV)*, Oct. 2016.
- J. Kim, <u>Juyong Kim</u>, S. You, Y. Oh, and S. Oh, "Actionable Topological Mapping for Navigation Using Nearby Objects," in *Proc. of the IEEE International Conference on Automation Science and Engineering (CASE)*, Aug. 2012.

#### **Honors and Awards**

Silver Medal (<u>Certificate</u>)

Hyundai Motor Chung Mong-Goo Scholarship • Full tuition & fees during my Master's degree program.	Mar. 2016 – Present
<ul> <li>Silver Prize in 25<sup>th</sup> Global Software Contest Exhibit</li> <li>Hosted by Ministry of Science ICT and Future Planning, Korea.</li> <li>Mobile Voting Service (MVS - Korean) (<u>Certificate</u>)</li> </ul>	Dec. 2013
National Science and Engineering Scholarship • Full tuition & fees during my college life, Funded by Korea Student Aid Foundation.	Mar. 2008 – Feb. 2015
Physics Honor Class (1, 2) • Top 20 students among the freshman admitted to Seoul National University.	2008
Korea Physics Olympiad	Dec. 2007

### JeongSan Science Talent Scholarship

2006 - 2007

• \$3,000/year during my high school years, funded by JeongSan Scholarship Foundation.

#### **Research Interests**

• Machine Learning, Deep Learning Architecture(especially in CNN), Computer Vision, Large-scale Visual Recognition, AI, Robotics

## **Teaching Experiences & Extracurricular Activities**

Teaching Assistant, Seoul National University • M1522.001000 Computer Vision	1 <sup>st</sup> semester, 2016
Tutor, Seoul National University • Selected as a Physics tutor	1 <sup>st</sup> semester, 2010
Tutor, Gyeongnam Science High School • Selected as a Physics tutor	Jul. 2008, Jan. 2009
President, Neophysics, Gyeongnam Science High School • Club for students gifted in physics	Oct. 2006 – Feb. 2008

#### **Skills**

#### **Relevant Coursework**

- 420.314 Introduction to Random Variables Processes
- 420.211 Programming Methodology
- 420.310 Fundamentals of Control Engineering
- 446.345 Introduction to Robot Engineering
- 420.405 Design Project for Electrical Devices & Systems
- 430.457 Introduction to Intelligent Systems
- 430.659 Topics in Computer and VLSI(Machine Learning) 406.563 Convex Optimization
- 420.216 Linear Algebra for Electrical Systems
- 420.327 Data Structures and Algorithms
- 420.456 Advanced Control Techniques
- 4190.408 Artificial Intelligence
- 430.714 Estimation Theory
- 430.711A Introduction to Computer Vision

• 4190.681A Genetic Algorithms

#### Programming Language/Library

- C++, Java, Python, C#, MATLAB, Mathematica, SQL, Verilog.
- TensorFlow, Caffe, Theano, OpenCV, MFC, Web development (w. Spring Framework), .Net Application, HTK Speech Recognition Toolkit, Android, etc.

(Last update: 02/12/2017)