

# Juyong Kim

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## Education

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### Machine Learning Department, Carnegie Mellon University

Sep. 2018 – Current

- Ph.D. student in Machine Learning
- Advisor: Prof. Pradeep Ravikumar

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

Mar. 2016 – Feb. 2018

- M.S. in Computer Science and Engineering
- Advisor: Prof. Gunhee Kim

### Seoul National University

Mar. 2008 – Feb. 2015

- B.S. in Electrical and Computer Engineering(Summa Cum Laude)
- Received Best Engineering Graduate Student Award

## Work and Research Experiences

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### AITRICS, Seoul, Korea

Mar. 2018 – Jul. 2018

- Research Scientist Internship

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

Sep. 2015 – Feb. 2018

- Research Assistant and Master student
- 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. Songhwa Oh
- "Actionable Topological Mapping for Navigation Using Nearby Objects" (See Publications below.)

## Research Interests

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- Machine Learning, Deep Learning Architecture (especially in CNN), Clinical Natural Language Processing, Computer Vision

## Publications

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### International Conferences

- **Juyong Kim**, 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, **Juyong Kim**, G. Kim, S. Hwang, "**Taxonomy-Regularized Semantic Deep Convolutional Neural Networks**", in *European Conference on Computer Vision (ECCV)*, Oct. 2016.
- J. Kim, **Juyong Kim**, 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

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### ILJU Overseas Ph.D. Scholarship

Aug. 2018 – Current

- Supporting outstanding PhD students studying abroad.

### Hyundai Motor Chung Mong-Goo Scholarship

Mar. 2016 – Feb. 2018

- Full tuition & fees during my Master's degree program.

### NVIDIA Deep Learning Contest 2016(Korea)

Oct. 2016

- 2<sup>nd</sup> place in Free Topic.

**Silver Prize in 25<sup>th</sup> Global Software Contest Exhibit**

Dec. 2013

- Hosted by Ministry of Science ICT and Future Planning, Korea.
- Mobile Voting Service (MVS - Korean)

**National Science and Engineering Scholarship**

Mar. 2008 – Feb. 2015

- Full tuition & fees during my college life, Funded by Korea Student Aid Foundation.

**Korea Physics Olympiad**

Dec. 2007

- Silver Medal

## Teaching Experiences & Extracurricular Activities

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**Teaching Assistant, Carnegie Mellon University**

Fall, 2019

- 10-715 Advanced Introduction to Machine Learning

**Teaching Assistant, Seoul National University**

Spring, 2016

- M1522.001000 Computer Vision

## Skills

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**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)
- 4190.681A Genetic Algorithms
- 4190.678 Natural Language Processing
- 10-715 Advanced Introduction to Machine Learning
- 10-716 Advanced Machine Learning
- 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
- 406.563 Convex Optimization
- M1522.001300 Probabilistic Graphical Models
- 36-715 Intermediate Statistics
- 10-707 Topics in Deep Learning

**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.