

Juyong Kim

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Education

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

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. Songhwai Oh
- "Actionable Topological Mapping for Navigation Using Nearby Objects" (See Publications below.)

Publications

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

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

- 2nd place in Free Topic.

Silver Prize in 25th 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

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

Mar. 2008 – Feb. 2015

Korea Physics Olympiad

• Silver Medal

Dec. 2007

Research Interests

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

Teaching Experiences & Extracurricular Activities**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

Tutor, Seoul National University

Spring, 2010

• Selected as a Physics tutor

Skills**Relevant Coursework**

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|---|---|
| • 420.314 Introduction to Random Variables Processes | • 420.216 Linear Algebra for Electrical Systems |
| • 420.211 Programming Methodology | • 420.327 Data Structures and Algorithms |
| • 420.310 Fundamentals of Control Engineering | • 420.456 Advanced Control Techniques |
| • 446.345 Introduction to Robot Engineering | • 4190.408 Artificial Intelligence |
| • 420.405 Design Project for Electrical Devices & Systems | • 430.714 Estimation Theory |
| • 430.457 Introduction to Intelligent Systems | • 430.711A Introduction to Computer Vision |
| • 430.659 Topics in Computer and VLSI(Machine Learning) | • 406.563 Convex Optimization |
| • 4190.681A Genetic Algorithms | • M1522.001300 Probabilistic Graphical Models |
| • 4190.678 Natural Language Processing | |
| • 10-715 Advanced Introduction to Machine Learning | • 36-715 Intermediate Statistics |
| • 10-716 Advanced Machine Learning | • 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.