

# Junhyug Noh

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## EDUCATION

**Seoul National University**, Seoul, Korea Mar 2015 – Current

- Ph.D. in Computer Science and Engineering
- Advisor: Prof. Gunhee Kim

**Seoul National University**, Seoul, Korea Mar 2013 – Feb 2015

- M.S. in Computer Science and Engineering
- Thesis: Machine Learning Models and Missing Data Imputation Methods in Predicting the Progression of IgA Nephropathy
- Advisor: Prof. Robert Ian McKay
- Graduated with 1st rank (out of 219) in College of Engineering

**Indiana University**, Bloomington, Indiana, USA Aug 2008 – Jan 2009

- Intensive English Program (IEP)

**Seoul National University**, Seoul, Korea Mar 2005 – Feb 2013

- B.S. in Computer Science and Engineering
- B.S. in Statistics (Double Major)
- Thesis: Prediction of Customer's Follow-on Purchase using Ensemble Methods

## RESEARCH EXPERIENCE

**Vision and Learning Lab**, Seoul National University Mar 2015 – Current

- Graduate Research Assistant
  - Supervisor: Prof. Gunhee Kim
  - Projects: Computer Vision (Object Detection, Semantic Segmentation, etc.), Medical AI

**Medical Research Center for Innovation**, Seoul National University Jan 2016 – Aug 2016

- Visiting Researcher
  - Supervisor: Prof. Yon Su Kim
  - Projects: Medical AI

**Structural Complexity Lab**, Seoul National University Mar 2013 – Feb 2015

- Graduate Research Assistant
  - Supervisor: Prof. Robert Ian McKay
  - Projects: Genetic Algorithm, Medical AI

## PUBLICATIONS

- [9] **Junhyug Noh**, Wonho Bae, Wonhee Lee, Jinhwan Seo and Gunhee Kim, "Better to Follow, Follow to Be Better: Towards Precise Supervision of Feature Super-Resolution for Small Object Detection," in *International Conference on Computer Vision (ICCV 2019)*, Seoul, Korea, Oct 2019.
- [8] Kangil Kim, Dong-Kyun Kim, **Junhyug Noh**, and Minhyeok Kim, "Stable Forecasting of Environmental Time Series via Long Short Term Memory Recurrent Neural Network," *IEEE Access*, vol. 6, no. 1, pp. 75216–75228, Dec 2018. (SCI)
- [7] Kangil Kim, **Junhyug Noh**, Dong-Kyun Kim, and Minhyeok Kim, "Conflict Relaxation of Activation-Based Regularization for Neural Network," *IEEE Access*, vol. 6, no. 1, pp. 52510–52518, Dec 2018. (SCI)
- [6] **Junhyug Noh**, Soochan Lee, Beomsu Kim, and Gunhee Kim, "Improving Occlusion and Hard Negative Handling for Single-Stage Pedestrian Detectors," in *IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2018)*, Salt Lake City, Utah, USA, Jun 2018.
- [5] **Junhyug Noh\***, Kyung Don Yoo\*, Hajeong Lee, Dong Ki Kim, Chun Soo Lim, Young-Hoon Kim, Jung Pyo Lee, Gunhee Kim, and Yon Su Kim, "A Machine Learning Approach Using Survival Statistics to Predict Graft Survival in Kidney Transplant Recipients: A Multicenter Cohort Study," *Nature Scientific Reports*, vol. 7, no. 1, pp. 8904, Aug 2017. (SCI, \*Equal contribution)

- [4] Kyung Don Yoo, Clara Tammy Kim, Myoung-Hee Kim, **Junhyug Noh**, Gunhee Kim, Ho Kim, Jung Nam An, Jae Yoon Park, Hyunjeong Cho, Kyoung Hoon Kim, Hyunwook Kim, Dong-Ryeol Ryu, Dong Ki Kim, Chun Soo Lim, Yon Su Kim, and Jung Pyo Lee, “Superior Outcomes of Kidney Transplantation Compared with Dialysis,” *Medicine*, vol. 95, no. 33, e4352, Aug 2016. (SCI)
- [3] **Junhyug Noh**, Dharani Punithan, Hajeong Lee, Jung Pyo Lee, Yon Su Kim, Dong Ki Kim, and Robert Ian McKay, “Machine Learning Models and Statistical Measures for Predicting the Progression of IgA Nephropathy,” *International Journal of Software Engineering and Knowledge Engineering*, vol. 25, no. 5, pp. 829–849, Jun 2015. (SCIE)
- [2] **Junhyug Noh**, Dharani Punithan, Hajeong Lee, Jung Pyo Lee, Yon Su Kim, Dong Ki Kim, and Robert Ian McKay, “Predicting the Progression of IgA Nephropathy using Machine Learning Methods,” in *International Conference on Bio-inspired Information and Communications Technologies (BICT 2014)*, Boston, Massachusetts, USA, Dec 2014. (Oral)
- [1] Wonhee Choe, Hyo-Sun Chun, **Junhyug Noh**, Seong-Deok Lee, and Byoung-Tak Zhang, “Estimating Multiple Evoked Emotions from Videos,” in *Annual Meeting of the Cognitive Science Society (CogSci 2013)*, Berlin, Germany, Aug 2013.

<b>AWARDS &amp; SCHOLARSHIPS</b>	<b>Naver Ph.D. Fellowship Award</b>	Nov 2018
	<b>Excellent Award of Degree Thesis</b>	Feb 2015
	<ul style="list-style-type: none"> <li>▪ Selected as the best master’s thesis by Department of Computer Science and Engineering, Seoul National University.</li> </ul>	
	<b>National Scholarship for Science and Engineering</b>	Mar 2005 – Jun 2011
	<ul style="list-style-type: none"> <li>▪ Funded full-tuition scholarship with stipend for undergraduate studies by Korea Student Aid Foundation (KOSAF).</li> </ul>	
<b>WORK EXPERIENCE</b>	<b>Kakao Mobility Corp.</b> Pangyo, Korea	Jun 2018 – Aug 2018
	<ul style="list-style-type: none"> <li>▪ Research Intern <ul style="list-style-type: none"> <li>• Developed a number plate detection and recognition model.</li> </ul> </li> </ul>	
	<b>Rolling Heads Inc.</b> , Seoul, Korea	Feb 2013 – Mar 2014
	<ul style="list-style-type: none"> <li>▪ Technical Advisor <ul style="list-style-type: none"> <li>• Developed a matching algorithm of social dating application using genetic algorithm.</li> </ul> </li> </ul>	
<b>TEACHING EXPERIENCE</b>	<b>Teaching Assistant and Guest Lecturer</b> , Seoul National University	Mar 2013 – Dec 2016
	<ul style="list-style-type: none"> <li>▪ M1522.001000 Computer Vision (Instructor: Gunhee Kim)</li> <li>▪ 4190.773 Probabilistic Graphical Models (Instructor: Gunhee Kim)</li> <li>▪ 4190.429 Image Processing (Instructor: Gunhee Kim)</li> <li>▪ 4190.680 Knowledge Representation and Reasoning (Instructor: Robert Ian McKay)</li> <li>▪ 4190.569 Technical Writing for Computer Engineers (Instructor: Robert Ian McKay)</li> <li>▪ 4190.425 Advanced Artificial Intelligence (Instructor: Robert Ian McKay)</li> <li>▪ 4190.101 Discrete Mathematics (Instructor: Robert Ian McKay)</li> </ul>	
	<b>Instructor</b> , SNU/SK Big Data Academy	Jun 2016 – Sep 2017
	<ul style="list-style-type: none"> <li>▪ Conducted courses in deep learning.</li> <li>▪ Topics: TensorFlow, Convolutional Neural Networks, Object Detction, etc.</li> </ul>	
	<b>Mentor</b> , Samsung Convergence Software Course (SCSC)	Aug 2015 – Jun 2016
	<ul style="list-style-type: none"> <li>▪ Worked as a mentor to support undergraduate students taking CSE major courses.</li> </ul>	
	<b>Reviewer</b>	
	<ul style="list-style-type: none"> <li>▪ International Journal of Computer Vision (IJCV)</li> </ul>	
<b>OTHER EXPERIENCE</b>	<b>Military Service</b> , Chungbuk, Korea	Jul 2006 – Jul 2008
	<ul style="list-style-type: none"> <li>▪ Sergeant <ul style="list-style-type: none"> <li>• Belonged to 602nd Battalion, 2nd Aviation Brigade, Army Aviation Operations Command.</li> </ul> </li> </ul>	

