

Seunghyun Yoon

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<http://david-yoon.github.io>

EDUCATION	Seoul National University , Seoul, Korea <i>Ph.D. Candidate in Department of Electrical and Computer Engineering</i> • Advisor: Professor Kyomin Jung 2017 - present
	Seoul National University , Seoul, Korea <i>M.S. in Department of Electrical and Computer Engineering</i> • Advisor: Professor Kyomin Jung • GPA : 3.92 / 4.3 Feb. 2017
	Handong Global University , Pohang, Korea <i>B.S. in Electrical and Electronics Engineering, Mechanical Engineering (dual)</i> • GPA : 3.82 / 4.5 Feb. 2006
RESEARCH INTERESTS	Question Answering (QA) System • QA pair ranking algorithm • reading comprehension QA Dialogue Model • language adaptation (personalization) • emotional discourse model (multi-modal)
PROFESSIONAL EXPERIENCES	Researcher Research scientist intern at Adobe Research , San Jose, US • Sentence-level answer selection for QA (paper, patent) • Speech emotion recognition (paper, patent) Sep. 2018 – Dec. 2018 Visiting Researcher at Automation & Systems Research Institute , Seoul, Korea • QA pair ranking algorithm for long-document Mar. 2017 – Aug. 2017 Senior Engineer at Samsung Research AI , Seoul, Korea • question answering system, information retrieval, ranking algorithm • developing social service platform (front-end, back-end) Feb. 2006 – Mar. 2017 Facilitator Representative of employees, Hangajok Council at Samsung , Korea • participated in labor-management consultation council Jan. 2012 – Jun. 2014 Trainer of Global New Employee Course at Samsung , Korea • served as a Samsung “global new employee training course” trainer (English) Jan. 2011 – Jul. 2011

ACADEMIC
ACTIVITIES

Program Committee

NAACL 2019

Teaching Assistant

Programming Methodology, **Seoul Nat'l Univ.** Spring 2018
Lab. Sentiment Analysis, BigCamp (Big Data Academy), **Big Data Institute** 2016-2018
Topics in Computer and VLSI (Machine Learning), **Seoul Nat'l Univ.** Fall 2015

Talks

QA-pair ranking algorithm and its applications, **Naver** Aug. 2018
Advancement of the Neural Dialogue Model, **Fast Campus** Jul. 2018

PUBLICATIONS

1. **S Yoon**, S Byun, S Dey, K Jung, "Speech Emotion Recognition Using Multi-Hop Attention Mechanism," to appear in *the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)* Oral Presentation, 2019
2. S Byun, **S Yoon**, K Jung, "Neural Networks for Compressing and Classifying Speaker-Independent Paralinguistic Signals," in *Proc. of the IEEE International Conference on Big Data and Smart Computing (BigComp)* Oral Presentation, 2019
3. **S Yoon**, K Park, J Shin, H Lim, S Won, M Cha, K Jung, "Detecting Incongruity Between News Headline and Body Text via a Deep Hierarchical Encoder," in *Proc. of the AAAI Conference on Artificial Intelligence (AAAI)* Oral Presentation, 2019. (Acceptance Rate=16%)
4. **S Yoon**, S Byun, K Jung, "Multimodal Speech Emotion Recognition using Audio and Text," in *Proc. of the IEEE Workshop on Spoken Language Technology (SLT)*, 2018.
5. Y Lee*, **S Yoon***, K Jung, "Comparative Studies of Detecting Abusive Language on Twitter," in *Proc. of Empirical Methods in Natural Language Processing (EMNLP) Workshop on Abusive Language Online*, 2018.
6. **S Yoon**, J Shin, K Jung, "Learning to Rank Question-Answer Pairs using Hierarchical Recurrent Encoder with Latent Topic Clustering," in *Proc. of Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, 2018. (Acceptance Rate=31%)
7. J Shin, Y Kim, **S Yoon**, K Jung, "Contextual-CNN: A Novel Architecture Capturing Unified Meaning for Sentence Classification," in *Proc. of the IEEE International Conference on Big Data and Smart Computing (BigComp)*, Oral Presentation, 2018.
8. **S Yoon**, P Estrada, K Jung, "Synonym Discovery with Etymology-based Word Embeddings," in *Proc. of the IEEE Symposium Series on Computational Intelligence (SSCI)*, 2017.
9. **S Yoon**, H Yun, Y Kim, G Park, K Jung, "Efficient Transfer Learning Schemes for Personalized Language Modeling using Recurrent Neural Network," in *Proc. of the AAAI Conference on Artificial Intelligence (AAAI) Workshop on Crowdsourcing, Deep Learning and Artificial Intelligence Agents*, 2017.
10. **S Yoon**, M Sundar, A Gupta, K Jung, "Automatic Question Answering System for Consumer Products," in *Proc. of SAI Intelligent Systems Conference. Springer, Cham*, 2016.
11. K Park, J Kim, J Park, M Cha, J Nam, **S Yoon**, E Rhim, "Mining the Minds of Customers from Online Chat Logs," in *Proc. of the ACM International Conference on Information and Knowledge Management (CIKM)*, 2015. (Acceptance Rate=21%)
12. **S Yoon**, E Rhim, D Kim, "Domain Question Answering System," in *KIISE Transactions on Computing Practices*, 2015.
13. **S Yoon**, K Lee, H Shin, "Media clips: Implementation of an intuitive media linker," in *Proc. of IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB)*, 2011.

SKILLS	<p>Excellence in Programming Languages: Java, C++, Python</p> <p>Excellence in Deep Learning Framework: Tensorflow</p> <p>Fluency in front-end sever design: Apache Tomcat, Spring Framework, AWS, Linux</p> <p>Familiarity with back-end sever design: NoSQL</p>
HONORS AND AWARDS	<p>5th place / 71 teams, National AI R&D Fake News Challenge, Ministry of Science and ICT, Korea 2017</p> <p>Scholarship for M.S. degree, Samsung Electronics 2015-2016</p> <p>Best Paper Presentation, Korea Computer Congress, 2014 2014</p>
PATENTS	<ol style="list-style-type: none"> 1. J Nam, M Lee, M Koo, S Yoon, "Method of recommending application, mobile terminal using the method, and communication system using the method," <i>issued patent, US 9,247,376</i>, Jan. 26, 2016 2. S Yoon, M Lee, "Method and apparatus for displaying photo on screen having any shape," <i>issued patent, US 9,049,383</i>, Jun. 2, 2015 3. S Yoon, M Lee, M Koo, J Nam, "Method and apparatus for providing information and computer readable storage medium having a program recorded thereon for executing the method," <i>issued patent, US 8,958,824</i>, Feb. 17, 2015 4. S Yoon, S Kim, "Method and apparatus for fast tracking position by using global positioning system," <i>issued patent, US 8,094,070</i>, Jan. 10, 2012 5. E Rhim, J Kim, J Nam, S Yoon, K Park, J Park, M Cha, "Method and device for analyzing user's emotion," <i>pending patent, PCT/KR1020160058782</i>, May. 13, 2016 6. Y Won, S Yoon, O Kwon, M Kim, H Oh, S Lee, S Cha, "User terminal device, information providing system, and method for providing information," <i>pending patent, US 14/511,506, EP20140185800</i>, Oct. 10, 2014 7. Y Kim, O Kwon, S Kim, H Oh, S Yoon, S Cha, J Lee, "Terminal apparatus, server and method of controlling the same," <i>pending patent, US 14/250,081, CN 201410085759, EP20140154718</i>, Apr. 10, 2014 8. S Yoon, M Lee, M Koo, J Nam, "Apparatus and method for searching with consideration user's action," <i>pending patent, US 13/631,353</i>, Sep. 28, 2012 9. S Yoon, M Lee, M Koo, J Nam, "Apparatus and method for clipping and sharing content at a portable terminal," <i>pending patent, US 13/629,394, CN 201280047213, EP20120837007, PCT/KR1020110097578</i>, Sep. 27, 2012 10. S Yoon, "Apparatus and method for correcting position information of portable terminal in multi-path zone," <i>pending patent, US 13/604,528</i>, Sep. 5, 2012 11. K Kim, J Lee, W Park, H Shim, Y Park, M Lee, M Koo, S Yoon, J Nam, "Method and apparatus for connecting devices," <i>pending patent, US 13/452,766, EP20120162473, PCT/KR1020110037351</i>, Apr. 20, 2012 12. S Yoon, S Maeng, J Huh, S Seo, J Kim, J Park, "Method and apparatus for crawling webpages," <i>pending patent, US 13/116,785</i>, May. 26, 2011

PATENTS
KOREAN

1. **S Yoon**, M Lee, M Koo, J Nam, "Method and apparatus for providing information, and computer readable storage medium," *issued patent*, KR 1017731670000, Aug. 24, 2017
2. J Nam, M Lee, M Koo, **S Yoon**, "Method for recommendation of application, mobile terminal thereof and communication system thereof," *issued patent*, KR 1017473030000, Jun. 8, 2017
3. **S Yoon**, S Kim, "Method and apparatus for fast positioning using global positioning system," *issued patent*, KR 1015649380000, Oct. 27, 2015
4. K Jung, **S Yoon**, J Shin, H Kwak, S Byun, "Artificial intelligence based dialog system and response control method thereof," *pending patent*, KR 1020170158345, Nov. 24, 2017
5. **S Yoon**, S Lee, O Kwon, M Kim, H Oh, Y Won, S Cha, "Method and apparatus for changing personal information," *pending patent*, KR 1020130122222, Oct. 14, 2013
6. **S Yoon**, J Nam, M Koo, M Lee, "Apparatus and method for collecting information of destination in portable terminal," *pending patent*, KR 1020130065793, Nov. 30, 2011
7. J Nam, M Lee, M Koo, **S Yoon**, "Apparatus and method for setting manner mode in portable terminal," *pending patent*, KR 1020110113927, Nov. 3, 2011