Sungjoon Park

psj6512@kaist.ac.kr , +82.042.350.7749

Research Interest: My research interests are in exploring latent characteristic of people based on machine learning models, and combining psychometric convention and machine learning approach. In particular, I study developing natural language processing machine learning models for problems in field of applied psychology. I like to work on broad area of computational social science (online games, multilingual behaviors, etc), and psychometrics as well.

Education

KAIST, Ph.D. Student, Computer Science, Mar 2016 – Present
- Advisor : Alice Oh

Seoul National University, M.S., Quantitative Psychology, Mar 2012 – Aug 2014
- GPA : 4.21 / 4.3. Advisor : Cheongtag Kim
- Thesis : Comparison between factor structure and semantic representation of personality test items using latent semantic analysis

Seoul National University, B.S., Psychology, Mar 2007 – Feb 2012
- GPA : 3.59 / 4.3

Publication

[1] Park, S., Bak, J., Oh, A. (2017) Rotated Word Vector Representations and their Interpretability. *To appear in Conference on Empirical Methods in Natural Language Processing 2017.*

[2] Kim, S., **Park, S.,** Hale, S. A., Kim, S., Byun, J., & Oh, A. H. (2016). Understanding editing behaviors in multilingual Wikipedia. *PLOS ONE*, 11(5), e0155305.

[3] Kim, J., Keegan, B. C., **Park, S.,** & Oh, A. (2016). The Proficiency-Congruency Dilemma: Virtual Team Design and Performance in Multiplayer Online Games. *In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 4351-4365). ACM.

[4] **Park, S.,** Kim, S., Hale, S. A., Kim, S., Byun, J., & Oh, A. (2015). Multilingual Wikipedia: Editors of Primary Language Contribute to More Complex Articles. *In Ninth International AAAI Conference on Web and Social Media.*

Experience

Research Intern, KAIST, U&I Lab (Dec 2014 – Feb 2016) Advisor: Alice Oh.
Analyzed language complexity of multilingual Wikipedia editors. This work was presented in ICWSM 2015 as a workshop paper, and extended to work published on PLOS ONE.

Intern, SNU Asia Center (Jan 2014 – Aug 2018)
Collected research results and participated in writing annual reports of the Center.

Research Assistance, SK Happiness Foundation, Strategic & Planning (July 2012 – Sep 2012)
Evaluating Social Return of Investments (SROI) of social enterprises under SK group.
Conducted interviews on site and collected/analyzed ROIs and SROIs.

Research Projects

[1] Neural network models for Sequence Embedding (April 2017-)
Constructing interpretable word embedding / Developing Neural Network models for one-to-one structured conversations. [Kakao Brain / Kakao Corp.]

[2] Recurrent-Convolutional Neural Networks for Individual Driver's Driving Pattern Inference (May 2016 – Present)
Analyzing driving patterns on SHRP2 naturalistic driving data by using RCNN models
[National Research Foundation]

[3] Driver Profiling based on Deep Learning (Dec 2015 – Nov 2016)
Inferring Driver Profiles (demographics, etc.) on SHRP2 naturalistic driving data
[Hyundai Motors Group]

[4] SSAT (Samsung Aptitude Test) Research & Development (Dec 2012 – Dec 2013)
Developing aptitude test measuring personality and g-factor related intelligences for recruitment based on ipsative responses, modeled by using Structural Equation Modeling and Item Response Theory.
[SERI, Samsung Economic Research Institute]

Teaching Experience

Psychological Statistics, TA, Spring, 2012.

Advanced Psychological Statistics, TA, Spring 2013.

Data Structures, Fall, TA, 2016.

Artificial Intelligence & Machine Learning, TA, Spring, 2017

Skills

Programming Languages: Python, Java, C++, Java, Javascript

Statistical Softwares: R, MPLUS, AMOS, SPSS, BiLog

References

Prof. Alice Haeyun Oh, Department of Computer Science, KAIST, alice.oh@kaist.edu

Prof. Cheongtag Kim, Department of Psychology, Seoul National University, ctkim@snu.ac.kr