

HAEKYU PARK

CONTACT

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RESEARCH INTERESTS

Data Mining, Graph Data Mining, Machine Learning, and Interpretable Machine Learning

EDUCATION

B.S., Computer Science and Engineering Mar. 2012 - Aug. 2017
Seoul National University, Seoul, Republic of Korea, Graduated with honors (Cum Laude)

WORK EXPERIENCE

Research Intern June 2016 - Present
Advisor: Prof. U Kang
Data Minig Lab at Seoul National University

PUBLICATIONS

1. Junghwan Kim, Haekyu Park, Ji-eun Lee, and U Kang, **SIDE: Representation Learning in Signed Directed Networks**, The Web Conference (Previously known as WWW, World Wide Web Conference) 2018. (under review)
2. Haekyu Park, Hyunsik Jeon, Junghwan Kim, Beunguk Ahn, and U Kang, **UniWalk: Explainable and Accurate Recommendation for Rating and Network Data**, SIAM International Conference on Data Mining (SDM), 2018. (under review)
3. Haekyu Park, Jinhong Jung, and U Kang, **A Comparative Study of Matrix Factorization and Random Walk with Restart in Recommender Systems**, IEEE International Conference on Big Data (BigData), 2017.

PROJECTS

1. **Recommender system on videos of Oksusu application** Present
Keywords: Tensorflow, Sequence Embedding, Approx. k-NN
SK Telecom, Seoul, Republic of Korea
2. **A Fast and Cost Efficient Data Compression Algorithm with Shared Virtual Memory in Heterogeneous System Architecture** 2017
Keywords: OpenCL, GPGPU, SVM, HSA
Undergraduate thesis

3. **Personalized Recommendation on Credit Card Rewards** 2016
Keywords: Coupled Matrix Factorization, Time Series Data
Hyundai Card, Seoul, Republic of Korea
4. **Social Recommender System with Graph and Rating Information** 2016
Keywords: Matrix Factorization, Network Embedding, Social Network
Final project of Probabilistic Graphical Model course

PATENTS

1. U Kang, Junghwan Kim, and Haekyu Park, Apparatus and Method for Representation Learning in Signed Directed Networks, Korean Patent 10-2017-0130914, 2017.
2. U Kang, Haekyu Park, Junghwan Kim, and Hyunsik Jeon, Explainable and Accurate Recommender Method and System using Social Network Information and Rating Information, Korean Patent 10-2017-0159167, 2017.

AWARDS AND HONORS

- National Scholarship For Science and Engineering** 2015
Merit-based

GRADUATE COURSEWORK

- Probabilistic Graphical Models @ Seoul National University Fall 2016

TECHNICAL SKILLS

Programming Languages

Advanced: Python, Java, C, C++
Experienced: Matlab, Ocaml, Scheme, HTML

Numerical Computing

Advanced: Numpy, SciPy, scikit-learn
Experienced: Matlab

Parallel Computing

Experienced: OpenCL

EXTRACURRICULAR ACTIVITIES

1. Group study of statistics Sept. 2017 - Present
With a book: "All of Statistics: A Concise Course in Statistical Inference", Larry Wasserman.
2. Private tutoring 2012 - Present
 - Programming languages (Python, Java, C, Scheme) for graduate students, undergraduate students, workers in brokerage firms, and a businessman.
 - Mathematics, Physics, and Chemistry for high school and elementary school students.

3. Tutoring Jan. - Aug. 2015
- General science for elementary school students.
At Jungdae elementary school, Jamshin elementary school, Songjeon elementary school, and Daemyung elementary school in Seoul, Korea.
 - Study habit for elementary school and middle school students.
At Samsung Digital City in Suwon, Korea.
4. Buddy assistant Feb. - Aug. 2014
- In club SNU (Seoul National University) Buddy.
 - Have become a friend with exchange students and helped them adapt to campus life and Korean culture.
 - Organized programs to enjoy together such as welcoming party, temple stay, short trips within Korea, folk games night, and farewell party.