Haekyu Park

Contact

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Research Interests

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

Education

Ph.D., Computer Science   Aug 2018 - Present
 Georgia Institute of Technology, Atlanta, GA
 Advisor: Prof. Polo Chau

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

Work Experience

Graduate Research Assistant   Aug 2018 - Present
 Advisor: Prof. Polo Chau
 Polo Club of Data Science at Georgia Institute of Technology

Research Intern   June 2016 - May 2018
 Advisor: Prof. U Kang
 Data Minig Lab at Seoul National University

Publications

1. Junghwan Kim, <u>Haekyu Park</u>, 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.

2. <u>Haekyu Park</u>, Hyunsik Jeon, Junghwan Kim, Beunguk Ahn, and U Kang, **UniWalk: Explainable and Accurate Recommendation for Rating and Network Data**, Arxiv

3. <u>Haekyu Park</u>, 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**   2017
   Keywords: Tensorflow, Sequence Embedding, Word Embedding, Approx. k-NN
   SK Telecom, Seoul, Republic of Korea

2. **A Fast and Cost Efficient Data Compression 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 <u>Haekyu Park</u>, Apparatus and Method for Representation Learning in Signed Directed Networks, Korean Patent 10-2017-0130914, 2017.

2. U Kang, <u>Haekyu Park</u>, 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

Computer Vision @ Georgia Institute of Technology	Fall 2018
Machine Learning @ Georgia Institute of Technology	Fall 2018
Information Visualization @ Georgia Institute of Technology	Fall 2018
Probabilistic Graphical Models @ Seoul National University	Fall 2016

Technical Skills

Programming Languages
  Advanced: Python, Java, C, C++
  Experienced: Matlab, R, JavaScript, HTML, Ocaml, Scheme

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

Parallel Computing
  Experienced: OpenCL