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MIN HYUNG LEE

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EDUCATION

Pittsburgh, PA **Carnegie Mellon University** **December 2015**

- Master of Science in Machine Learning (School of Computer Science)
- Coursework in progress: Machine Learning, Statistics

Hong Kong, China **Hong Kong University of Science and Technology** **May 2014**

- Bachelor of Science in Computer Science and Mathematics, GPA: 4.116/4.3
- Coursework: Operating Systems; Databases; Machine Learning; Natural Language Processing; Social Network Analysis; Big Data Mining; Optimization
- Honors: Academic Achievement Medal (top 1%), University Full Scholarship (Fall 2011 – Spring 2014)

TECHNICAL EXPERIENCE

Data Analysis Project **Fall 2014 – Spring 2015**

- Developing an online Statistics course based on the edX platform *(Python)* which enables adaptive random selection of problems used to perform educational experiments
- Modeling adaptive problem selection and tutor intervention using partially observable Markov decision processes
- Developing optimized decision making algorithms for choosing the best tutoring tactics for each student

Final Year Research **Summer 2013 – Spring 2014**

- Topic: Machine Learning in Crowdsourcing for Video Annotation
- Developed robust estimation based heuristic algorithm using pixel-based representation of bounding boxes
- Developed learning and inference algorithms for continuous-state hidden Markov model in *MATLAB*
- Applied the algorithms to benchmark object tracker dataset and obtained better results than the best tracker

Data Mining Course Project **Spring 2014**

- Developed social network recommender system based on the KDDCUP2012 Weibo dataset, configured with *python* for data organization and *GraphLab (C++)* for efficient collaborative filtering
- Extended existing stochastic gradient descent implemented using GraphLab to learn separate latent factors for additional features of users and items

Recommender Systems Course Project **Fall 2013**

- Led a team of three in experimenting the adverse effect of data sparsity on the performance of item-based and latent factor based collaborative filtering algorithms, configured with *Apache Mahout (Java)*
- Created movie rating datasets with varying sparsity using the MovieLens 1M dataset by randomly removing edges, and tested the performance of the algorithms on 200 datasets created through the process

Natural Language Processing Course Project **Fall 2013**

- Formulated categories of context-insensitive words, which can be directly translated to any other language
- Implemented a parser using *flex* and *bison (C)*, which identify and separate the context-insensitive words from the rest of the corpus using XML notation

LANGUAGES AND TECHNOLOGIES

- Proficient in Java, C++, MATLAB, SQL, some knowledge of Python, Flex and Bison
- Apache Mahout, GraphLab

STUDENT ACTIVITIES

President, Founder **Korean Traditional Percussion Band** **Fall 2011 – Spring 2014**

- Led a band of 8 members in successfully performing at Hong Kong University of Science and Technology 20th anniversary

Vice President, Founder **Korean Students' Association** **Summer 2012 – Spring 2013**

- Led the executive committee in organizing on-campus culture-sharing events
- Created a mentor system between current students to facilitate interactions between seniors and juniors