Younghun Lee

Portfolio: http://younghunlee.com   Email: younggnse@gmail.com

Profile

Computer Science Ph.D. Applicant interested in **machine learning** applications for **natural language processing**. Proficient in academic research, software development, information retrieval, and social network analysis.

Education

Sep 2015 to Apr 2017	**University of Michigan**, Ann Arbor, Michigan **Master of Science** in **Information**, GPA: 3.83/4.0

- Study Emphases: **Information Retrieval** and **Human-computer Interaction**
- Research: Interaction retrieval and analysis, advised by Professor Mark W. Newman
- Award: **Outstanding Graduate Student Instructor of the Year** in 2016-2017. Recognized by University of Michigan School of Information

Mar 2008 to Feb 2015	**Seoul National University**, Seoul, South Korea **Bachelor of Science** in **Electrical and Computer Engineering**, GPA: 3.56/4.0

- Study Emphases: **Computer Science** and **Applied Electrical Engineering**
- Research: Data mining and visualization, advised by Professor Joonhwan Lee
- Award: **Dean of Faculty of Liberal Education Prize (1st Prize)** in Fall 2012. Recognized by *The Best Paper Competition in "Writing in Science & Technology"*

Academic Experience

Sep 2016 to Apr 2017	**Graduate Student Instructor** at **University of Michigan School of Information**

- Fall 2016: Taught *Data Oriented Programming* (SI 206) to 88 students
- Winter 2017: Taught *Intermediate Programming* (SI 507) to 127 graduate students

Nov 2016 to Apr 2017	**Independent Study—User Interaction Pattern Retrieval and Analysis**

- Implemented an Android web emulator from a Java application that captures user interaction patterns in mobile applications and stores log data in Firebase database
- Recruited 100 users from Amazon Mechanical Turk and analyzed log files in order to determine the type of tasks

Nov 2015 to Apr 2016	**Research Assistant** at **IRIS (Institute for Research on Innovation & Science)**

- Improved the usability of IRIS portal webpage dashboard by adding 6 main features (PHP, JavaScript, JQuery)
- Altered $O(n^2)$ key generation algorithm into $O(n)$ by implementing a hash table

Publications

Oct 2018	**Younghun Lee**, Seunghyun Yoon and Kyomin Jung, *Comparative Studies of Detecting Abusive Language on Twitter*, EMNLP Workshop on Abusive Language Online, Oct 2018, Brussels, Belgium

Scholarships

Mar 2013 to Feb 2013	*Kwanak Corporation Scholarship* by Seoul National University Alumni Association
Mar 2010 to Feb 2011	*Superior Academic Performance Scholarship* by Seoul National University
Mar 2008 to Feb 2009	*National Scholarship for Science and Engineering* by Korea Research Foundation

Selected Projects

Feb 2017 to Apr 2017	**Revealing the Network and Diffusion Patterns of False Information** • Customized *Twitter API for Python* in order to retrieve more than a million messages containing specific URL information from Twitter • Modeled friends and follower network graphs, and analyzed them with centrality measures and identified characteristics of false information
Nov 2016 to Dec 2016	**Investigating the Effect of Presidential Election Results on Hate Crimes** • Developed a Python program with NLTK in order to retrieve Twitter messages on hate crimes and analyze the sentiment of each message • Investigated the statistical significance of a null hypothesis with t-statistics
Mar 2016 to Apr 2016	**Developing a UFO Search Engine** (Summary Paper) • Improved an existing UFO search engine by evaluating information retrieval methodologies such as inverted index, tf-idf, PageRank, and query expansion
May 2014 to Jun 2014	**Sawtooth Bubble Chart—Visualizing Human Emotion** (Summary Paper) • Retrieved and categorized Twitter data by time, age, and geolocation • Implemented a model that visualizes arousal and valence level of human emotion of each tweet using Affective Norms for English Words dictionary
Mar 2014 to May 2014	**Korean Text Analysis—Relevancy Visualization of Morphemes** • Developed a vector space model that parses a Korean document, calculates the intensity of relevancy between meaningful words by cosine similarities • Improved the model by experimenting with weights on different n-grams
Dec 2013 to Jan 2014	**Visualizing Articles with Different Viewpoints** • Built a web application that parses two Korean articles of the same subject into morphemes, classifying their similarities and differences, and visualizing them with word clouds

Professional Experience

Jun 2016 to Aug 2017	**UX Developer Intern** at **Gale Cengage Learning**, Farmington, Michigan • Developed a web application for internal salespeople to help them demonstrate the value of Gale's resources and recommend suitable products to customers
Jan 2015 to Jul 2015	**Associate Software Engineer** at **Samsung Electronics Co., Ltd.**, Suwon, South Korea • Achieved 2nd place in the Creative Idea Competition held by Digital Media and Communication R&D Center

References

Mark W. Newman	Associate Professor • University of Michigan, School of Information • 4380 North Quad, 105 S State St, Ann Arbor, MI 48105 • Office: (734) 764-0020 Email: mwnewman@umich.edu
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