

# Younghun Lee

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## Profile

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

## Education

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- Aug 2019 to Present    **Ph.D. in Computer Science at Purdue University**, West Lafayette, Indiana
- Study Emphasis: **Natural Language Processing**, Advisor: Dan Goldwasser
- Sep 2015 to Apr 2017    **M.S. in Information at University of Michigan**, Ann Arbor, Michigan
- Study Emphases: **Information Retrieval** and **Human-computer Interaction**
- Mar 2008 to Feb 2015    **B.S. in Electrical and Computer Engineering at Seoul National University**
- Study Emphases: **Applied Electrical Engineering** and **Information Visualization**

## Publications

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

## Selected Projects

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- Feb 2017 to Apr 2017    **Revealing the Network and Diffusion Patterns of False Information**
- Retrieved Twitter messages containing URLs of false information, modeled friends and follower network graphs on Twitter, analyzed them with graph 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, analyze the sentiment of each message, and investigate the statistical significance of a null hypothesis with t-statistics
- May 2014 to Jun 2014    **Sawtooth Bubble Chart—Visualizing Human Emotion (Summary Paper)**
- 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 an article written in Korean, calculates the intensity of relevancy between meaningful words by cosine similarities
- Dec 2013 to Jan 2014    **Visualizing Articles with Different Viewpoints**
- Built a web application that parses two articles of the same subject into morphemes, classifying their similarities and differences, and visualizing them with word clouds

## Professional Experience

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- 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
- Nov 2015 to Apr 2016    **Research Assistant at IRIS (Institute for Research on Innovation & Science)**
- Improved the usability of IRIS portal webpage dashboard by implementing 6 main features (PHP, JavaScript, JQuery)
  - Altered  $O(n^2)$  key generation algorithm into  $O(n)$  by implementing a hash table
- 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