

# SANGPIL YOUM

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## EDUCATION

**University of Florida, Gainesville, FL**

Mar 2022 - present

*Ph D. in Computer Science GPA : 3.88/4.00*

**Indiana University, Bloomington, IN**

May 2021

*Master of science in Data Science GPA : 3.88/4.00*

**SungKyunKwan University, Seoul, South Korea**

Feb 2019

*Bachelor in Data Science, Library and Information Science GPA : 3.92/4.50 , 4.08/4.50*

**University at Buffalo, Buffalo, NY**

Jan 2016 - May 2016

*Exchange Student GPA : 3.93/4.00*

## PUBLICATIONS

### Peer-Reviewed Articles

- Jayaweera, C., **Youm, S.**, Dorr, B. AMREx: AMR for Explainable Fact Verification, EMNLP Workshop FEVER 2024
- Zhang, D., Xiao, B., Gao, C., **Youm, S.**, Dorr, B. Modeling Bilingual Sentence Processing: Evaluating RNN and Transformer Architectures for Cross-Language Structural Priming, EMNLP Workshop MRL 2024
- Martinez, M., Schmer-Galunder, s., Liu, Z., **Youm, S.**, Jayaweera, C., Dorr, B. Balancing Transparency and Accuracy: A Comparative Analysis of Rule-Based and Deep Learning Models in Political Bias Classification, EMNLP Workshop SICON 2024
- Youm, S.**, Mather, B., Jayaweera, C., Prada, J., Dorr, B. DAHRS: Divergence-Aware Hallucination-Remediated SRL Projection. *The 29th International Conference on Natural Language & Information Systems (NLDB)*. 2024. [https://doi.org/10.1007/978-3-031-70239-6\\_29](https://doi.org/10.1007/978-3-031-70239-6_29)
- Jang, S. H., **Youm, S.**, & Yi, Y. J. Anti-Asian Discourse in Quora: Comparison of Before and During the COVID-19 Pandemic with Machine- and Deep-Learning Approaches *Race and Justice*. 2023; 13(1): 55–79. <https://doi.org/10.1177/21533687221134690>
- Jang S. H., Gerend MA, **Youm S**, Yi Y. J. Understanding coronavirus disease 2019 (COVID-19) vaccine hesitancy: Evidence from the community-driven knowledge site Quora. *DIGITAL HEALTH*. 2022;8. <https://doi.org/10.1177/20552076221145426>
- Kim J, **Youm S**, Shan Y, Kim J. Analysis of Fire Accident Factors on Construction Sites Using Web Crawling and Deep Learning Approach. *Sustainability*. 2021; 13(21):11694. <https://doi.org/10.3390/su132111694>

### Manuscript under review

- Youm, S.**, Han, C., Jang, S. H., Dorr, B. “I Still Need Your Help”: Online Information Seeking Behavior Among International Students on Reddit, submitted to CHI 2025.
- Youm, S.**, Yoo, N., Jang, S. H., Dorr, B. How Mixed Emotions on Reddit Predict Depressive Symptoms in Asian American Families, submitted to Journal of Computational Social Science.
- Youm, S.**, Jang, S.H., Kwak, H., Choi, J., Yi, Y.J. Cross-Cultural Vaccine Perceptions: Comparing COVID-19 Vaccine Public Discourse in the U.S. and South Korea using Natural Language Processing, submitted to Journal of Computers in Human Behavior.

## WORKING PAPERS

### Developing Social Bias Detection model for Cultural Divergence

| transformers, spacy, pytorch

- Develop social bias detection model for cultural divergence to avoid miscommunication

## PRESENTATIONS

### Academic Conference

- Youm, S.**, Han, C.E., Jang, S.H. July 2024. Information-seeking Behavior Among International Students on Reddi: A Comparative Analysis Before and After Start of COVID-19. *10th International Conference on Computational Social Science (IC2S2)*
- Youm, S.**, Yoo, N., Jang, S.H. July 2024. Beyond Positive or Negative: How Mixed Emotions on Reddit Predict Depressive Symptoms in Asian American Families. *10th International Conference on Computational Social Science(IC2S2)*
- Youm, S**, Jang, S. H., Yi, Y.J. April 2022. Understanding COVID-19 Vaccine Hesitancy: Evidence from Quora. *In proceeding of Society of Behaviour Medicine*

## WORK EXPERIENCE

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### Instructor

Spring 2024

*Department of Computer and Information Science and Engineering at University of Florida*

- Natural Language Processing (CAI 6307)

### Graduate Teaching Assistant

Jan 2023 – Present

*Department of Computer and Information Science and Engineering at University of Florida*

- Natural Language Processing (CAP 4641)
- Developed and operated class projects

### Graduate Research Assistant

Mar 2022 – Present

*Department of Computer and Information Science and Engineering at University of Florida*

- Developed generalizable algorithm for the Semantic Role Labeling (SRL) task in low/mid-resource languages
- Established *Natural Language Processing & Culture (NLP&C)* lab environment

### Research Volunteer

June 2021 – Feb 2022

*Luddy School of Informatics, Computing and Engineering at Indiana University*

- Verified whether clustering method finds or not communities in case of perturbed network
- Construct method for finding out optimized modularity within constrained number of groups by using simulated annealing, developed in Julia and Python

### Graduate Researcher

Oct 2020 – May 2021

*Wissee*

- Built and compared the performance between Deep learning model (BERT, LSTM) and machine learning model (Hidden Markov Model) for Name Entity Recognition.
- Processed Twitter data by applying NLP techniques with Spacy and NLTK and compared the efficiency between them

## TECHNICAL SKILLS

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**Languages and Script :** Python, C, C++, Julia, R, SQL, JavaScript, HTML, CSS, XML, Erlang

**Machine Learning:** Classification, Linear Regression, Logistic Regression Ridge and Lasso Regression, Support Vector machine, Hidden Markov Model, K-means Clustering, Deep Learning - CNN, LSTM, BERT, Transformers

**Database:** Postgres, MongoDB, MySQL

**Libraries:** Pandas, Scikit-learn, NLTK, spaC, NetworkX, Numpy, Tensorflow, Pytorch, Keras, Selenium, BeautifulSoup, HTMLParser, requests, matplotlib, UMAP, genism, scipy, spacy

**OS:** Windows, Mac, Linux

## COURSEWORK

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**Programming and Computer Science:** Introduction to computer science, Computer Architecture Principles, Programming Language, Advanced Data structure, Algorithms, Advanced Database System, Operating System, Data Mining, Deep Learning System, Designing Database Systems

**Mathematical and Statistical Foundation:** Calculus 2/3, Probability and Statistics, Linear algebra, Time series analysis, Statistical Reasoning

**Data Science and Application:** Natural Language Processing, Computational Social Science, Network Science, Big Data Analytics, Social Data Analytics, Introduction to Data Science, Data Science and Linguistics, Health Informatics, Information Analysis and Evaluation, Semantic Web system

## LEADERSHIP, AWARDS AND OTHERS

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### Excellent Project Award in Python Programming Bootcamp

August 2017

*SungKyunKwan University(SKKU), Seoul, South Korea*

### Outstanding Performance Scholarship Awards

April, September 2017

*SungKyunKwan University(SKKU), Seoul, South Korea*

### President of the student council

December 2016 – December 2017

*Department of Data Science and Library and Information Science*

### Army Sergeant Discharge in Full Time

December 2011 - September 2013

*Republic of Korea Army, Pocheon, South Korea*

**REFERENCES**

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Available upon request