Yoo Yeon Sung

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EDUCATION

University of Maryland   *2020–Now*
Ph.D. Candidate in College of Information
Advised by Jordan Boyd-Graber and Naeemul Hassan

Korea University   *2017–2019*
M.S in Industrial Management Engineering
Advised by Seoung Bum Kim

Chung-Ang University   *2013–2017*
B.A in English Language and Literature (minor: Computer Science and Engineering)

Cleveland State University   *2014–2015*
Exchange Student in English Language and Literature

SELECTED PUBLICATIONS

VeriTD: Human-aligned Verification of LLM Task Decomposition
Yoo Yeon Sung, Hannah Kim, Dan Zhang
Under Review

Is Your Benchmark Truly Adversarial? AdvScore: Evaluating Human-Grounded Adversarialness
Yoo Yeon Sung, Maharshi Gor, Eve Fleisig, Ishani Mondal, and Jordan Boyd-Graber
Under Review

Collaborative Insights on Perceptions and Corrections of Misleading News Headlines from Journalists and News Consumers
Md Main Uddin Rony, Saransh Grover, Farhana Uddin, **Yoo Yeon Sung**, Mohammad Ali, Syed Ishtiaque Ahmed, Naeemul Hassan
Under Review

How the Advent of Ubiquitous Large Language Models Both Stymie and Turbocharge Dynamic Adversarial Question Generation
Yoo Yeon Sung, Ishani Mondal, and Jordan Boyd-Graber
Under Review

You Make Me Feel Like a Natural Question: Training QA Systems on Transformed Trivia Questions
Tasnim Kabir, **Yoo Yeon Sung**, Saptarashmi Bandyopadhyay, Hao Zou, Abhranil Chandra, and Jordan Boyd-Graber
Empirical Methods in Natural Language Processing (EMNLP) 2024

Not All Fake News is Written: A Dataset and Analysis of Misleading Video Headlines
Yoo Yeon Sung, Jordan Boyd-Graber, and Naeemul Hassan
Empirical Methods in Natural Language Processing (EMNLP) 2023

Topical Keyphrase Extraction with Hierarchical Semantic Networks
Yoo Yeon Sung and Seoung Bum Kim
Decision Support Systems (DSS) 2020

AWARDS

Doctoral Students Research Awards   *Spring 2022*
 Awarded for distinguished research achievements, University of Maryland

Chung Woon Shik Scholarship   *Spring 2016*
 Awarded for outstanding academic excellence, Chung-Ang University

Chung Woon Shik Scholarship   *Fall 2016*
Awarded for outstanding academic excellence, Chung-Ang University

PROFESSIONAL EXPERIENCE

Research Intern, Megagon Labs *2024 May–2024 Aug*
Advised by Hannah Kim and Dan Zhang
- Developed human-aligned LLM planner pipeline with task-specific LLM agents to perform complex reasoning and fact-checking tasks that are not solvable with n-shot CoT prompting framework
- Built a verification framework for the LLM planner accounting for human interaction with human-designed subtask taxonomy and demonstrated its generalization across reasoning tasks

Visiting Researcher, KAIST *2024 May–2024 Aug*
Advised by Jaegul Choo and collaborated with Papago, Naver Labs
- Developed machine translation modules that leverage user logs and post-edits to improve accuracy and provide personalized, context-aware translations tailored to user preferences
- Applied graph models to address multi-hop challenges in commonsense and reasoning QA tasks

Graduate Student Research Assistant, Korea University *2017 May–2019 Aug*
- Designed graph-based hierarchical keyphrase extraction models for corpus-level analysis in science domain
- Developed document summarization models with generative and Seq2Seq modules with hierarchical attention mechanism and GANs

MENTORING EXPERIENCE

- **2024 UMD Technica & Hackathon** Program Organizer and Mentor
- **CMSC 470: Natural Language Processing** Teaching Assistant
- **INST 326: Object-Oriented Programming** Teaching Assistant
- **Mentored students for Research**
  - Tasnim Kabir (UMD Ph.D)
  - Ishan Upadhyay(IIT Bombay B.S)
  - Christina Zhang (UMD B.S)
  - Emily Kong (UMD B.S)

PROFESSIONAL SERVICE

- **Peer Review**
  ACL 2021, NAACL 2022, EMNLP 2022, ACL ARR (2023, 2024)
- **ACL 2023 Student Research Workshop**
  Undergraduate Mentor

SKILLS

- **Programming:** Python, R, C++, Git, NodeJS, JavaScript, HTML, CSS, Pandas LaTeX
- **Languages:** Korean (Native), English (Fluent)

REFERENCES

Jordan Boyd-Graber
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Naeemul Hassan
Assistant Professor at University of Maryland
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