

# Jiho Noh

Curriculum Vitae – updated Apr 15, 2026

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## RESEARCH INTERESTS

- **Intelligent search** – Methodology of data mining and interactive information retrieval, leveraging a range of advanced machine learning and reasoning technologies.
- **Natural Language Processing** – Language technologies for information extraction, conversational systems, question-answering. NLP applications in multidisciplinary domains including STEM Education and Business Intelligence.
- **Machine Learning** – Advanced deep learning techniques, especially in the context of representation learning for knowledge discovery.
- **Health Informatics** – Biomedical information retrieval, clinical text mining, and knowledge graph construction.

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## CURRENT POSITIONS

### Kennesaw State University

2021– *Assistant Professor*,  
YesNLP, Laboratory for Intelligent Search  
Department of Computer Science,  
College of Computing and Software Engineering

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## EDUCATION

2021 Ph.D. in Computer Science and Biomedical Informatics  
University of Kentucky, KY, USA  
Dissertation: “*Neural Representations of Concepts and Texts for Biomedical Information Retrieval*”

2013 B.S. in Computer Science and Mathematics  
Indiana University at Bloomington, IN, USA  
– Mathematics Minor, Specialized in Artificial Intelligence,  
– Graduated with *Highly Distinguished Honor* (< 2%)

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## PROFESSIONAL EXPERIENCE

2020–21 *Research Assistant* under Dr. Ramakanth Kavuluru  
University of Kentucky, KY, USA  
Project: *Neural Representation for Biomedical Knowledge*

2015–17 *Research Assistant* under Dr. Raphael Finkel  
University of Kentucky, KY, USA  
Project: *Kratylos — Unified linguistic corpora from diverse data sources*

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## ACHIEVEMENTS

### Awards/Scholarships

2024 KSU CCSE Outstanding Teaching Award

2020 University of Kentucky, Graduate School Congress (GSC) Travel awards

- 2020 Runner-up in the 2020 research poster presentation competition at the Commonwealth Computational Summit
- 2018 Department Conference Travel Award, University of Kentucky, Department of Computer Science
- 2018 Winner of BioASQ 2018 Challenge — Large-scale biomedical semantic indexing and question answering
- 2017 Winner of TREC 2017 — Precision Medicine Track Competition, Top 5 retrieval system
- 2013 Department Excellence Award, University of Texas at Austin, Texas
- 2011–12 Dean’s List and Founders Scholar, Indiana University at Bloomington
- 2011–12 Lindley Scholarship, Indiana University at Bloomington

## Grants

### > Kennesaw State University

- 2024.04 KSU SEED Grant (\$10,000), Kennesaw State University
- 2024.03 Summer Research (\$5,000), College of Architecture and Construction Management
- 2023.05 Summer Research Fellow (\$10,000), Kennesaw State University

## MENTORSHIP

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### Thesis advisor

- 2023.12 *Darlington O. Omoifo*, MScS student, Kennesaw State University

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- 2023.12 *Darlington O. Omoifo*, MScS student, Kennesaw State University  
Thesis: “Effectively Deploying Large Language Models on Edge Devices”
- 2023.11 *Burak Kure*, MScS student, Kennesaw State University  
Thesis: “Enhancing Texture Analysis using Deep Learning”
- 2023.10 *Inchan Hwang*, PhD student, Kennesaw State University  
Thesis: “Improving Breast Cancer Detection using Generative Adversarial Networks”
- 2022 *Tong Chen*, MScS student, Kennesaw State University  
Thesis: “Improving Fashion Attribute Classification Accuracy with Limited Labeled Data using Transfer Learning”
- 2022 *Neha Bhargava*, MScS student, Kennesaw State University  
Thesis: “Fairness and Privacy in Machine Learning Algorithms”
- 2022– *Muna Jamel*, MScS student, Kennesaw State University  
Thesis: “Detection of Ransomware Attacks using Deep Learning”

### Research advisor

- 2022– *Syed Md Shamsul Alam*, Ph.D. student, Kennesaw State University  
Research topic: “Approximated Nearest Neighbor Search”
- 2022 *Naga Sai Krishna Adatrao*, MScS student, Kennesaw State University  
Research topic: “Neural Representation Learning for Information Retrieval”

2022 *Gowtham Reddy Gadireddy*, MScS student, Kennesaw State University  
Research topic: “Advanced Clustering Algorithms: Towards Deep Clustering”

## SERVICE

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### Reviewer/PC Member

- Association for the Advancement of Artificial Intelligence (AAAI) [22–25]
- ACM Multimedia (MM) [2023],
- American Medical Informatics Association (AMIA) [19–22],
- Empirical Methods in Natural Language Processing (EMNLP) [2020]
- European Conference on Artificial Intelligence (ECAI) [2024]
- Knowledge-based Systems (KNOSYS) [2021]
- Transactions on Asian and Low-Resource Language Information Processing (TALLIP) [2023]
- Uncertainty in Artificial Intelligence (UAI) [2024]

### Institutional Service

2022– Admission and Curriculum Committee, committee member  
College of Computing and Software Engineering, Kennesaw State University

2022,23 KSU C-Day Computing Showcase, reviewer  
College of Computing and Software Engineering, Kennesaw State University

#### 0.0.1 Organizer/Chair of Conferences and Workshops

2023 KSU Deep Learning Summer Boostcamp

#### 0.0.2 Program committee member for International Conferences and Workshops

2023.09 Workshop, Task Focused IR in the Era of Generative AI (group discussion panel)

### Invited Talks / Presentations

2023 Research seminar (“Graph Representation Learning for Information Retrieval”) at CLOVA.ai

2021 Seminar talk (“Joint learning for biomedical NER and entity normalization”) at UNLV

2021 Oral presentation at the 11th ACM conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB)

2020 Invited paper oral presentation at the Workshop on Scholarly Document Processing (SDP) in conjunction with the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP).

2020 Research presentation at Center for Computational Sciences (CCS) on Text Summarization for Document Retrieval

2018 Invited talk at Korean Scholars Associate at University of Kentucky on knowledge representation in biomedical information science.

2018 Oral presentation at 17th IEEE International Conference on Machine Learning and Applications on Document Retrieval for Biomedical Question-Answering

## PROFESSIONAL DEVELOPMENT

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### 0 Conference Attended

- 2023 2023 NVIDIA GTC  
2023 2023 ACM South-East Regional Conference

### 0 Workshop Participated

- 2023 NIH Grant Writing Workshop, Kennesaw State University, Office of Research  
2023 SEED, Scientists and Engineers Early Career Development Workshop, Korean-American Scientists and Engineers Association (KSEA), Dallas, Texas

## ACADEMIC ACTIVITIES

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### List of Courses Taught

#### Kennesaw State University

- CS 7260: Advanced Database Systems [22Sp]
- CS 6070: Database Systems [22Su]
- CS 7267: Machine Learning [22Sp,23Sp,23F]
- CS 7263: information retrieval [21F,22F,23F]
- CS 4422: information retrieval [21F,22F,23F]

#### University of Kentucky

- (As a lecturer) CS 275: Discrete Mathematics [2019,20]
- (As a TA) CS 275: Discrete Mathematics [2018]
- (As a TA) CS 215: Introduction to Program Design, Abstraction, and Problem Solving [2017,18]

### Non-credit Instruction Taught

- Workshop on Deep-learning for Research at Kennesaw State University, organizer, May 2023

## NON-ACADEMIC WORK

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### Pre-doctorate Work Experience

- 2013–14 *Research Assistant Developer*  
Center for Research on Electronic Commerce, University of Texas at Austin, Texas
- 2009–11 *CEO and Co-Founder*  
TravelCombi Co., Ltd., Seoul, Korea
- before *Republic of Korea Marine Corps*

## PROJECTS

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- 2022 Meta-Gee: Graph representation learning for IR and KB Construction
- Kennesaw State University, YesLab
  - Using meta-doc information with graph neural networks for information retrieval
- 2020 JoMoDEL
- University of Kentucky, BioNLP Lab
  - Joint neural network model for mention detection and concept normalization with biomedical concepts

- Role: research assistant (NIH grants R01LM013240)
- 2020 TASumm
  - University of Kentucky, BioNLP Lab
  - Neural Text Summarization Model for Scientific Document Retrieval Tasks
- 2020 Misleading Information about COVID-19
  - University of Kentucky, BioNLP Lab
  - Predictive model using CBA algorithm (apriori association rules) for identifying tweets with misleading information, particularly the use of smoking (vaping) as potential prophylactic or therapeutic for COVID-19.
- 2019 BMET Embeddings
  - University of Kentucky, BioNLP Lab
  - Learning joint word-concept embeddings from the biomedical entity annotated corpus.
- 2019 BioASQ 2018: Large-scale Biomedical Semantic Indexing and Question Answering
  - University of Kentucky, BioNLP Lab
  - Neural model and auxiliary tools for scoring query-document relevance.
  - Ranked 2nd in the Biomedical Semantic Question-Answering subtask
- 2017 TREC, 2017 Precision Medicine Track
  - University of Kentucky, BioNLP Lab
  - Document retrieval system for scientific abstracts and clinical trials addressing relevant treatments for the given patient.
  - System utilizes learning-to-rank methods and different query manipulation techniques.
  - Ranked 6th in Precision Medicine subtrack
- 2015–17 Kratylos: Unified Linguistic Corpora from Diverse Data Sources
  - Endangered Language Alliance (ELA) and University of Kentucky
  - developed a document management system that serves the (computational) linguistic researchers for managing and accessing the lexical and corpus datasets
  - <https://www.kratylos.org>
  - role: research assistant (NSF under the DEL program, grants 1500753)
- 2014 Business Proximity Analyzer
  - Center for Research on Electronic Commerce (CREC), University of Texas at Austin
  - Development of data mining tools for measuring business informations such as business proximity and investments on IT start-up companies.
- 2009–11 BookingAdd.com
  - TravelCombi Co., Ltd., Seoul, Korea
  - Online reservation systems for hotels, flights, resort condos.

## PUBLICATIONS

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### Journals

1. Atay, Zeynep, Aaron Morrisett, Jiho Noh, Amanda Anderson, and Jae Hoon Lee. *“Emerging Mental Health Challenges in Construction Industry through Web Crawling.”* Journal of Engineering, Project, and Production Management (2025).
2. Kavuluru, Ramakanth, Jiho Noh, and Shyanika W. Rose. *“Twitter discourse on nicotine as potential prophylactic or therapeutic for COVID-19.”* International Journal of Drug Policy 99 (2022): 103470.
3. Noh, Jiho, and Ramakanth Kavuluru. *“Improved biomedical word embeddings in the transformer era.”* Journal of Biomedical Informatics 120 (2021): 103867.

## Conferences

1. Ming, Nong, Sachin Sharma, and Jiho Noh. "YouLeQD: Decoding the Cognitive Complexity of Questions and Engagement in Online Educational Videos from Learners' Perspectives." IEEE International Conference on Semantic Computing (ICSC). 2025.
2. Sharma, Sachin, Jiho Noh, and Michael S. Alexiou. "Investigating the Transferability and Robustness of Adversarial Attacks Between Standard and Dilated CNN Architectures." International Conference on Advanced Information Networking and Applications (AINA). 2025.
3. Sharma, Sachin, Jiho Noh, and Michael S. Alexiou. "Correction to: Investigating the Transferability and Robustness of Adversarial Attacks Between Standard and Dilated CNN Architectures." International Conference on Advanced Information Networking and Applications (AINA). 2025.
4. Adatrao, Naga Sai Krishna, Gowtham Reddy Gadireddy, and Jiho Noh. "A Survey on Conversational Search and Applications in Biomedicine." *Proceedings of the ACMSE 2022 Conference*. 2023.
5. Tong C, Noh J, Cranfill L, Morris J, and Son J. "Improving Fashion Attribute Classification Accuracy with Limited Labeled Data Using Transfer Learning." In 2022 21th IEEE International Conference on Machine Learning and Applications (ICMLA) 2022. IEEE.
6. Noh, Jiho, and Ramakanth Kavuluru. "Joint learning for biomedical NER and entity normalization: encoding schemes, counterfactual examples, and zero-shot evaluation." *Proceedings of the 12th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics*. 2021 Aug.
7. Noh, Jiho. "Joint learning for biomedical NER and entity normalization." Annual Symposium of The 21st Korean Computer Scientists and Engineers Association in America (KOCSEA) — *Poster*, Las Vegas, 2021 Nov.
8. Noh, Jiho, and Ramakanth Kavuluru. "Literature Retrieval for Precision Medicine using Neural Matching and Faceted Summarization." *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2020 Nov.
9. Noh, Jiho, and Ramakanth Kavuluru. "Document Reranking for Precision Medicine with Neural Matching and Faceted Summarization." *Findings of the Association for Computational Linguistics: EMNLP 2020*. 2020 Nov.
10. Noh J, Kavuluru R. Document Retrieval for Biomedical Question Answering with Neural Sentence Matching. In 2018 17th IEEE International Conference on Machine Learning and Applications (ICMLA) 2018 Dec 17 (pp. 194-201). IEEE.
11. Noh J, Kavuluru R. Team UKNLP at TREC 2017 Precision Medicine Track: A Knowledge-Based IR System with Tuned Query-Time Boosting. In TREC 2017.

## Preprints

1. Noh, Jiho, Mukhesh Raghava Katragadda, and Daesoo Lee. "Automated Domain Question Mapping (DQM) with Educational Learning Materials." arXiv preprint arXiv:2601.07062 (2026).
2. Adatrao, Naga Sai Krishna, Gowtham Reddy Gadireddy, and Jiho Noh. "A Survey on Conversational Search and Applications in Biomedicine." arXiv preprint arXiv:2211.15328 (2022).