Monika Jain

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B-416 Lab, R&D, IIIT Delhi, New Delhi

RESEARCH INTERESTS

Information extraction, Natural Language Processing, Deep Learning, Knowledge Graphs, Machine Learning and Semantic Web

WORK EXPERIENCE

Indraprastha Institute of Information Technology (IIIT-D), Delhi — *Delhi, India*
Research Scholar — *January 2019-Present*

Child Health Imprints — *Delhi, India*
Research Intern — *June 2019-July 2019*

Manipal University Jaipur — *Jaipur, Rajasthan, India*
Assistant Professor (IT) — *July 2015-December 2018*

Raja Ramanna Centre for Advanced Technology, Indore — *Indore, India*
Department of Atomic Energy, Government of India — *July 2014-May 2015*
Research Intern

EDUCATION

Indraprastha Institute of Information Technology (IIIT-D) — *Delhi, India*
Pursuing PhD in Computer Science and Engineering — *January 2019-Present*

Banasthali Vidyapeeth — *Niwai, Rajasthan, India*
Master of Technology (M.Tech) in Computer Science — *July 2015*

Lakshmi Narain College of Technology — *Indore, Madhya Pradesh, India*
Bachelor of Engineering (B.E) in Computer Science — *June 2012*

PROJECT

1. Document Relation Extraction from Text
Document-level relation extraction is a challenging task that involves identifying relationships between entities within a document. In this work, we propose a context-aware link prediction approach for improving document-level relation extraction.

2. Relation Extraction from Biomedical Text
Relation Extraction (RE) is the task of extracting semantic relationships between entities in a sentence and aligning them to relations defined in a vocabulary, which is generally in the form of a Knowledge Graph (KG) or an ontology. We present a novel technique called ReOnto, that makes use of neuro-symbolic knowledge for the relation extraction task.

3. Nutrition Compliant System: Ontology modeling and deployment of hospital policies and nutritional guidelines
Babies born before 34 to 37 weeks (admitted to NICU) often have problems feeding from a bottle or a breast. We have developed an ontology based nutrition guideline system which captures all the current information of neonates like day of life, sign and symptom and others in integration with rules built with the help of medical experts and guidelines available. This system provides feed recommendation to babiess.

PUBLICATIONS

- **Monika Jain,** Raghava Mutharaju, Kuldeep Singh, Ramakanth Kavuluru "Knowledge-Driven Cross-Document Relation Extraction". Research Track, ACL 2024 (Findings)
- **Monika Jain** "Knowledge Enabled Relation Extraction". PhD Symposium Track, WWW 2024
- **Monika Jain**, Raghava Mutharaju, Ramakanth Kavaluru, Kuldeep Singh "Revisiting Document-Level Relation Extraction with Context-Guided Link Prediction", Main Technical Track, AAAI 2024
- Ravneet. Kaur, **Monika Jain** et al., "An Ontology and Rule-Based Clinical Decision Support System for Personalized Nutrition Recommendations in the Neonatal Intensive Care Unit", Journal, IEEE Access 2023
- **Monika Jain**, Kuldeep Singh and Raghava Mutharaju "ReOnto: A Neuro-Symbolic Approach for Biomedical Relation Extraction", Research Track, ECML PKDD 2023
- Nikhil Sachdeva, **Monika Jain**, and Raghava Mutharaju, "Extraction of Union and Intersection Axioms from Biomedical Text", Poster track, ESWC conference, June 2021
- **Monika Jain**, Paramita Mirza and Raghava Mutharaju "Cardinality Extraction from Text for Ontology Learning", ACM IKDD CODS and 25th COMAD, Young Researchers' Symposium track, 2020

ACTIVITIES

- **TheWebConf 2024**
- **Member-CIKM 2023**
- **Subreviewer-ESWC2023**
- **PC Member-TheWebConf2023-Companion**
- **PC Member-SemREC 2022**
- **Subreviewer-CODS-COMAD 2022**
- **PC Member-CIKM 2022**

PROGRAMMING LANGUAGES/FRAMEWORKS

OWL, RDF, SPARQL, Python