Jishnu Ray Chowdhury

https://jrc1995.github.io/

## **EDUCATION**

• University of Illinois at Chicago (Transferred from K-State)

PhD in Computer Science; CGPA: 4.00/4.00

Chicago, IL 2019 – Now

Email: jishnu.ray.c@gmail.com

• Kansas State University

Computer Science; CGPA: 4.00/4.00

Manhattan, KS 2018 – 2019

• Calcutta Institute of Engineering and Management

Bachelor of Technology in Computer Science and Engineering; DGPA: 8.06/10

Kolkata, India 2014 – 2017

# EXPERIENCE

• Bloomberg

New York, NY

Data Science Research Intern

May 2020 - August 2020 and May 2021 - August 2021

• Worked on Question Generation and Prompt Tuning (resulting in publication).

• University of Illinois Chicago

Chicago, IL

Research Assistant

June 2019 - May 2020, August 2020 - May 2021, August 2021-Now

Developed novel Recursive Neural Network architectures. Worked on several Keyphrase Generation projects.
 Worked on contrastive learning, large language models, named entity recognition, question generation, and
 Transformers

• Kansas State University

Manhattan, KS

Research Assistant

Aug 2018 - May 2019

• Named Entity Recognition and keyphrase extraction on tweets.

• RBIC Solutions

Freelance Full Stack Development

Sep 2016 - June 2017

o Developed Menu Management software.

# Papers

- Modeling Hierarchical Structures with Continuous Recursive Neural Networks Jishnu Ray Chowdhury, and Cornelia Caragea. In Proceedings of ICML 2021 (Long Talk)
- Novelty Controlled Paraphrase Generation with Retrieval Augmented Conditional Prompt Tuning Jishnu Ray Chowdhury, Yong Zhuang, Shuyi Wang. In Proceedings of AAAI 2022 (Oral)
- Beam Tree Recursive Cells Jishnu Ray Chowdhury, and Cornelia Caragea. In Proceedings of ICML 2023
- Efficient Beam Tree Recursion Jishnu Ray Chowdhury, and Cornelia Caragea. In Proceedings of NeurIPS 2023
- Recursion in Recursion Jishnu Ray Chowdhury, and Cornelia Caragea. In Proceedings of NeurIPS 2023
- Monotonic Location Attention for Length Generalization Jishnu Ray Chowdhury, and Cornelia Caragea. In Proceedings of ICML 2023
- KPDROP: Improving Absent Keyphrase Generation Jishnu Ray Chowdhury, Seoyeon Park, Tuhin Kundu, and Cornelia Caragea. In Findings of EMNLP 2022
- Keyphrase Extraction from Disaster-related Tweets. Jishnu Ray Chowdhury, Cornelia Caragea, and Doina Caragea. In Proceedings of WWW 2019
- Cross-Lingual Disaster-related Multi-label Tweet Classification with Manifold Mixup.-Jishnu Ray Chowdhury, Cornelia Caragea, and Doina Caragea. In Proceedings of ACL SRW 2020
- Data Augmentation for Low-Resource Keyphrase Generation Kirshna Garg, Jishnu Ray Chowdhury, and Cornelia Caragea. In Findings of ACL 2023
- Neural Keyphrase Generation: Analysis and Evaluation Tuhin Kundu, Jishnu Ray Chowdhury, and Cornelia Caragea.
  ArXiv 2023
- Keyphrase Generation Beyond the Boundaries of Title and Abstract Krishna Garg, Jishnu Ray Chowdhury, Cornelia Caragea. In Findings of EMNLP 2022

- On the Evaluation of Answer-Agnostic Paragraph-level Multi-Question Generation -Jishnu Ray Chowdhury, Debanjan Mahata, Cornelia Caragea. Arxiv 2020
- On Identifying Hashtags in Disaster Twitter Data. Jishnu Ray Chowdhury, Cornelia Caragea, and Doina Caragea. In Proceedings of AAAI 2020

# SELECTED PROJECTS (SEE MORE: https://jrc1995.github.io/)

- LLM Zero-Shot Prompt Tech: Implementation of an LLM prompting pipeline combined with wrappers for auto-decomposing reasoning steps and for search through the reasoning-step-space (eg. by beam search, MCTS etc.) guided by self-evaluation.
- Conversational Bot: Chatbot based on hybrid neural retrieval and generation mechanism with TTS on top.
- Deep Learning Optimizers: Custom PyTorch optimizers library to allow synergy among optimizer techniques.
- NER on Social Media: Empirical evaluation of various NER frameworks and noise-reduction strategies.
- Text Classification with Capsule Routing: Empirical and theoretical investigations of various Capsule Routing and attention-based aggregation strategies
- Reddit-like Website: Reddit-like website with Vue, MongoDB, MariaDB, Axios, etc.

#### SKILLS

• Python, Pytorch, Tensorflow, SQL, NoSQL, Vue, NodeJS, JavaScript, Java, C, C++, Octave

## SERVICES

• ICLR 2024 Reviewer, AAAI 2024 Reviewer, EMNLP 2023 Reviewer, NeurIPS 2023 Reviewer, ACL 2023 Reviewer, ICLR 2023 Reviewer, AAAI 2023 Reviewer, ACL 2021 Reviewer, Multiple ARR Reviews