# Shafiuddin Rehan Ahmed

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Boulder, Colorado, USA

## RESEARCH INTERESTS

Natural Language Processing  $\cdot$  Information Extraction and Retrieval  $\cdot$  Knowledge Graphs  $\cdot$  Machine Learning  $\cdot$  Deep Learning  $\cdot$  Neuro-Symbolic NLP  $\cdot$  Generative Models  $\cdot$  Comprehension

## **EDUCATION**

MS and Ph.D., Computer Science and Engineering

University of Colorado, Boulder, USA

Aug 2017 - May 2024

Bachelor of Technology, Computer Science and Engineering

Indian Institute of Technology, Hyderabad, India

Aug 2008 - May 2012

# TECHNICAL SKILLS

**Programming:** Python, Java, C#, C++

**IDE:** VSCode, PyCharm

Deep Learning: PyTorch

# RESEARCH EXPERIENCE (5+ YEARS)

Graduate Research Assistant (Python)

University of Colorado, Boulder, USA

Jan 2024 - May 2024

Contributions: SemEval 2024 · ACL 2024

Machine Learning Engineer Intern - Remote (Python)

ExplosionAl GmbH (makers of spaCy), Berlin, Germany

May 2023 - Aug 2023

Contributions: EACL<sub>SD</sub> 2024 · LREC-COLING 2024b · Anno Tool 3

Machine Learning Engineer Intern - Remote (Python)

ExplosionAI GmbH (makers of spaCy), Berlin, Germany

May 2022 - Aug 2022

Contributions: LAW 2023 · Anno Tool 2

Graduate Research Assistant (Java, Python)

University of Colorado, Boulder, USA

Jan 2018 - May 2022

Contributions: TAC 2018 · TAC 2019 · ACL<sub>f</sub> 2023 · EMNLP<sub>SD</sub> 2023 ·

LREC-COLING 2024a · Anno Tool 1 ·

Software Engineering Intern II (Python)

Sopris Health, USA

June 2018 - Aug 2018

Senior R&D Engineer (Python)

HP Inc. R&D, Bangalore, India

Aug 2016 - Aug 2017

Contributions: US Patent 2018

Software Developer (C#)

HP Inc. R&D, Bangalore, India

Aug 2012 - Aug 2016

# TEACHING EXPERIENCE

Natural Language Processing Teaching Assistant	Aug 2023 - Dec 2023
Fundamentals of Software Engineering Teaching Assistant	Jan 2023 - May 2023
Natural Language Processing Teaching Assistant	Aug 2022 - Dec 2022
Numerical Linear Algebra Student Assistant	Aug 2017 - Dec 2017

# **PATENTS**

1. Shameed Sait M A, Shafiuddin Rehan Ahmed, Niranjan Damera Venkata. *Providing Solutions Using Stochastic Modelling*. en. 2018. URL: https://patents.google.com/patent/US20210049489A1/

# **AWARDS**

- 1. Best Frame Recall for Cross Document Event Coreference Resolution in Text Analysis Conference, 2019
- 2. 3rd Place Outstanding Poster In-Progress Research, Graduate Students' Research expo., 2018-2019
- 3. Merit-cum-Means Scholarship for Undergraduate Studies, 2009-2012

## **PAPERS**

- Shafiuddin Rehan Ahmed, Zhiyong Wang, George Baker, Kevin Stowe, and James H. Martin. "Generating Harder Cross-document Event Coreference Resolution Datasets using Metaphoric Paraphrasing". In: Proceedings of the Association for Computational Linguistics: ACL 2024. Bangkok, Thailand: Association for Computational Linguistics, Aug. 2024
- 2. Micah Zhang, Shafiuddin Rehan Ahmed, and James H. Martin. "FtG-CoT at SemEval-2024 Task 9: Solving Sentence Puzzles Using Fine-Tuned Language Models and Zero-Shot CoT Prompting". In: Proceedings of the 18th International Workshop on Semantic Evaluation (SemEval-2024). Mexico City, Mexico: Association for Computational Linguistics, 2024
- 3. Shafiuddin Rehan Ahmed, George Arthur Baker, Evi Judge, Michael Reagan, Kristin Wright-Bettner, Martha Palmer, and James H. Martin. "Linear Cross-document Event Coreference Resolution with X-AMR". in: Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024). Torino, Italia: ELRA and ICCL, May 2024, pp. 10517–10529. URL: https://aclanthology.org/2024.lrec-main.920
- 4. Abhijnan Nath, Huma Jamil, Shafiuddin Rehan Ahmed, George Baker, Rahul Ghosh, James H. Martin, Nathaniel Blanchard, and Nikhil Krishnaswamy. *Multimodal Cross-Document Event Coreference Resolution Using Linear Semantic Transfer and Mixed-Modality Ensembles.* 2024. arXiv: 2404.08949 [cs.CL]
- 5. Shafiuddin Rehan Ahmed, Jon Cai, Martha Palmer, and James H. Martin. "X-AMR Annotation Tool". In: Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics: System Demonstrations. Malta: Association for Computational Linguistics, Mar. 2024. URL: https://arxiv.org/abs/2403.15407

- 6. Jon Cai, Shafiuddin Rehan Ahmed, Julia Bonn, Kristin Wright-Bettner, Martha Palmer, and James H. Martin. "CAMRA: Copilot for AMR Annotation". In: *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing: System Demonstrations.* Singapore: Association for Computational Linguistics, Dec. 2023, pp. 381–388. URL: https://aclanthology.org/2023.emnlp-demo.35
- 7. Shafiuddin Rehan Ahmed, Abhijnan Nath, Michael Regan, Adam Pollins, Nikhil Krishnaswamy, and James H. Martin. "How Good Is the Model in Model-in-the-loop Event Coreference Resolution Annotation?" In: *Proceedings of the 17th Linguistic Annotation Workshop (LAW-XVII)*. Toronto, Canada: Association for Computational Linguistics, July 2023, pp. 136–145. URL: https://aclanthology.org/2023.law-1.14
- 8. Shafiuddin Rehan Ahmed, Abhijnan Nath, James H. Martin, and Nikhil Krishnaswamy. "2\*n is better than  $n^2$ : Decomposing Event Coreference Resolution into Two Tractable Problems". In: Findings of the Association for Computational Linguistics: ACL 2023. Toronto, Canada: Association for Computational Linguistics, July 2023, pp. 1569–1583. URL: https://aclanthology.org/2023.findings-acl.100
- 9. Cecilia Mauceri, Shafiuddin Rehan Ahmed, Timothy O'Gorman, Chris Koski, Peter G. Anick, David White, and Martha Palmer. "RAMFIS: Integrating Diverse TA1's". In: *Text Analysis Conference*, *TAC*. 2019. URL: https://api.semanticscholar.org/CorpusID:233303322
- 10. Cecilia Mauceri, Shafiuddin Rehan Ahmed, and Timothy O'Gorman. "RAMFIS System Report TAC 2018." In: *Proceedings of the 2018 Text Analysis Conference, TAC 2018, Gaithersburg, Maryland, USA, November 13-14, 2018.* NIST, 2018

#### REVIEWER DUTIES

ACL 2024 · EMNLP 2023, 24 · StarSEM 2023, 24

## **COURSES**

 $\label{eq:continuous} \begin{tabular}{l} Deep Learning \cdot Natural \ Language \ Processing \cdot Algorithms \cdot Machine \ Learning \cdot Programming \ Languages \cdot Probabilistic \ Models \cdot Numerical \ Linear \ Algebra \cdot Transformer \ Models \cdot Probabilistic \ Programming \ Languages \ Languages \ Probabilistic \ Programming \ Languages \ Probabilistic \ Probabilistic \ Programming \ Languages \ Probabilistic \ Programming \ Probabilistic \ Probabilistic \ Programming \ Probabilistic \ Programming \ Probabilistic \ Pr$ 

## IMPORTANT LINKS

- Portfolio/Personal: https://ahmeshaf.github.io
- GitHub: https://github.com/ahmeshaf
- Google Scholar: https://scholar.google.com/citations?user=t3IALyoAAAAJ
- Semantic Scholar: https://www.semanticscholar.org/author/Shafiuddin-Rehan-Ahmed/1418353489
- LinkedIn: https://linkedin.com/in/ahmeshaf
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