Shivam Sharma

sharma.shivam2705@gmail.com | Scholar | LinkedIn | Website

EDUCATION

New Jersey Institute of Technology

M.Sc in Data Science

New Jersey, USA Aug 2019 - May 2021

The LNM Institute of Information Technology

B. Tech in Computer and Communication Engineering

Rajasthan, India Aug 2015 - May 2019

Publications

RAG vs. Long Context: Examining Frontier Large Language Models for Environmental Review Document Comprehension Paper

H. Phan, A. Acharya, S. Chaturvedi, Shivam Sharma, M. Parker, D. Nally, A. Jannesari, K. Pazdernik, M. Halappanavar, S. Munikoti, S. Horawalavithana

Arxiv, 2024

Foundation models of scientific knowledge for chemistry: Opportunities, challenges and lessons learned Paper

S. Horawalavithana, E. Ayton, Shivam Sharma, S. Howland, M. Subramanian, S. Vasquez, R. Cosbey, M. Glenski, S. Volkova

BigScience Workshop, 2022

Expert: Public benchmarks for dynamic heterogeneous academic graphs Paper

S. Horawalavithana, E. Ayton, A. Usenko, Shivam Sharma, J. Eshun, R. Cosbey, M. Glenski, S. Volkova Arxiv, 2022

Bang for your Buck: Performance Impact Across Choices in Learning Architectures for Crisis Informatics Paper

Shivam Sharma, C. Buntain

ISCRAM, 2022

Evaluating and explaining natural language generation with genx Paper

K. Duskin, Shivam Sharma, J.Y. Yun, E. Saldanha, D. Arendt

DaSH, 2022

An Evaluation of Twitter Datasets from Non-Pandemic Crises Applied to Regional COVID-19

Contexts Paper

Shivam Sharma, C. Buntain

ISCRAM, 2021

Method Comparison for Crisis Pipelines Paper

Shivam Sharma, C. Buntain

TREC-IS, 2021

Improving Classification of Crisis-Related Social Media Content via Text Augmentation and

Image Analysis Paper

Shivam Sharma, C. Buntain

TREC-IS, 2020

Combining neural, statistical and external features for fake news stance identification Paper

G. Bhatt, A. Sharma, Shivam Sharma, A. Nagpal, B. Raman, A. Mittal

MSM, 2018

Research Experience

Data Scientist

January 2023 – Present

Pacific Northwest National Laboratory

Washington, USA

 Contributed on the research and development of domain-specific applications of Large Language Models for scientific and environmental datasets.

Research Associate

October 2021 – December 2022

Pacific Northwest National Laboratory

Washington, USA

Assisted in the application of Natural Language Processing techniques for data curation and post-processing tasks.

Research Intern

September 2020 - May 2021

Pacific Northwest National Laboratory

Washington, USA

• Contributed to the evaluation and refinement of text generated by Large Language Models to enhance the detection and classification of phishing emails

Research Assistant

October 2019 – September 2020

New Jersey Institute of Technology

New Jersey, USA

• Led research on applying Natural Language Processing techniques and Large Language Models to analyze social media posts during crisis situations.

Research Intern

June 2017 – July 2017

Indian Institute of Technology

Uttarakhand, India

• Played a key role in research and implementation of Natural Language Processing techniques for detecting stances in fake news content.

Professional Activities

Conference and Journal Reviewing

- Program Committee, ER 2024
- Review Committee, PERTRA Socio-NLP 2024
- Review Committee, IEEE TAI 2023
- Review Committee, Humanities & Social Sciences Communications Journal 2023
- Review Committee, EMNLP 2023

Invited Talks

• Lowercarbon AI Hackathon for Clean Energy, 2024

Programming Skills

Languages: Python, SQL, R

Libraries: HuggingFace Transformers, HuggingFace Accelerate, HuggingFace Datasets, PyTorch

Software: Git, Docker