

Srijan Bansal

Graduate Student

Language Technologies Institute, Carnegie Mellon University

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[LinkedIn](#) | [Google Scholar](#) | [Website](#)

EDUCATION

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- Carnegie Mellon University, Pittsburgh, PA** Aug 2021 - Aug 2023
 - Masters in Computer Science (Language Technologies)* GPA: 4.17/4.33
 - Advisor : **Prof. Eric Nyberg**
 - Indian Institute of Technology Kharagpur, India** Jul 2016 - May 2020
 - B.Tech in Electronics and Electrical Communication Engineering (Major),* GPA: 9.42/10
 - Computer Science and Engineering (Minor)*

PUBLICATIONS

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- Srijan Bansal**, Suraj Tripathi, Sumit Agarwal, Teruko Mitamura, Eric Nyberg
PRO-CS : An Instance-Based Prompt Composition Technique for Code-Switched Tasks [\[pdf\]](#)
Conference on Empirical Methods in Natural Language Processing (EMNLP) 2022
 - S. Bansal**, S. Tripathi, S. Agarwal, S. Gururaja, A. Veerubhotla, R. Dutt, T. Mitamura, E. Nyberg
R3 : Refined Retriever-Reader pipeline for Multidoc2dial [\[pdf\]](#)
ACL 2022 DialDoc Workshop
 - Srijan Bansal**, Vishal Garimella, Ayush Suhane, Animesh Mukherjee
Debiasing Multilingual Word Embeddings: A Case Study of Three Indian Languages [\[pdf\]](#)
ACM Conference on Hypertext and Social Media 2021
 - Srijan Bansal**, Vishal Garimella, Ayush Suhane, Jasabanta Patro, Animesh Mukherjee
Code-switching patterns can be an effective route to improve performance of downstream NLP applications: A case study of humor, sarcasm and hate speech detection [\[pdf\]](#)
Conference of the Association for Computational Linguistics (ACL) 2020
 - Jasabanta Patro, **Srijan Bansal**, Animesh Mukherjee.
A Deep-Learning framework to detect Sarcasm Targets [\[pdf\]](#)
Conference on Empirical Methods in Natural Language Processing (EMNLP) 2019
 - T.Y.S.S Santosh, **Srijan Bansal**, Avirup Saha.
Can Siamese Networks help in Stance detection? [\[pdf\]](#)
ACM Joint International Conference on Data Science and Management of Data (CoDS-COMAD) 2019

PRE-PRINT

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- **Srijan Bansal**, Semih Yavuz, Bo Pang, Meghana Bhat, Yingbo Zhou
Few-shot Unified Question Answering: Tuning Models or Prompts?

SKILLS AND INTERESTS

Skills : NLP, Research, Prompt Engineering, Deep Learning, Machine Learning, Huggingface, Pytorch, Python

Interests : Question Answering, Conversational AI, Transfer Learning, Parameter Efficient Learning, Large Language Models, Information Retrieval

WORK EXPERIENCE

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- Salesforce Research** Palo Alto, CA
 - Research Intern | Supervisor: Yingbo Zhou* May 2022 - Aug 2022
 - Thorough examination of soft prompt tuning towards few-shot unified question answering
 - Carnegie Mellon University** Pittsburgh, PA
 - Graduate Research Assistant | Supervisor: Eric Nyberg* Aug 2021 - Present
 - Knowledge-grounded conversational question answering in open-domain setting; parameter-efficient training methods

- **Hitachi Vantara** Bangalore, India
Data Scientist | Supervisor: Anirban Basu *Apr 2020 - July 2021*
 - Platform to assist DevOps teams to optimize and localize the root cause of issues in containerized applications
- **EPFL (Machine Learning and Optimization Lab)** Lausanne, Switzerland
Research Intern | Supervisor: Martin Jaggi *May 2019 - July 2019*
- **Hitachi Ltd., R&D Team (Centre for Technology Innovation)** Tokyo, Japan
Research Intern | Supervisor: Martin Klinkigt *Dec 2018 - Jan 2019*
- **IIIT-Allahabad (Speech Image and Language Processing Lab)** Allahabad, India
Research Intern | Supervisor : U.S. Tiwary *June 2018 - July 2018*

TEACHING

- **CMU 11797 Question Answering** Spring 2023
Teaching Assistant

PREVIOUS RESEARCH PROJECTS

- **Prompt Pruning for Large Language Models** *Sep 2022 - Present*
Independent Study | Supervisor : Prof. Graham Neubig
 - Devising prompt pruning strategies to include more examples and continuously adapt prompt for online learning. Evaluate the transferability of pruning strategies across different LLMs.
- **Benchmark for open-domain Conversation Question Answering** *Sep 2022 - Present*
Research Study | Supervisor : Prof. Eric Nyberg
 - Evaluation benchmark for conversation QA model in full-data and few-shot setting across multiple domains. Propose a flexible framework to distill knowledge through rewritten queries for dense and sparse models.
- **Multihop Multimodal Question Answering** *Jan 2022 - Apr 2022*
Course Project | Supervisor : Prof. Yonatan Bisk
 - Propose a two-stage pipeline for multimodal-multihop dataset (WebQA) using a corpus-level text retriever and novel multimodal and multihop retriever for the fine-grained retrieval of information sources.

RELEVANT COURSES

Computational Ethics, Art & Machine Learning, Convex Optimization, Question Answering, Multimodal Machine Learning, Advance Natural Language Processing, Machine Learning for Text and Graph based Mining, Artificial Intelligence

ACADEMIC ACHIEVEMENTS

- **First** place in the Multidoc2dial shared task (unseen-setting) at the Dialdoc Workshop in ACL 2022.
- Awarded for best student of B.Tech (ECE) having a mix of academic and research potential at the end of 4 years.
- Young Researchers' Symposium **Special Mention Award** for short paper at CODS-COMAD 2019 Conference

VOLUNTARY INVOLVEMENTS

- Program Committee Member : 3rd Dialdoc Workshop 2023
- Department Executive Committee Member, Language Technologies Institute, CMU (June 2022 - Present)
- Program Committee Member (Volunteer): ACL 2020
- Program Committee Member (Reviewer): International Conference Of Cognitive Neuroscience (ICON) 2020

EXTRA CURRICULAR ACTIVITIES

- Member of the **Gold-medal** winning Water Polo team, National Level **Inter-IIT Championship 2019**
- **Captain** Aquatics Team, HJB Hall and bagged **1 Gold, 1 Silver, 2 Bronze** medals at Inter-hall Championship
- Operational & Technical Assistant (Student Volunteer) at **Rotary India's** health, blood donation & adult literacy camps
- **National** and **Regional** level prizes in Philately, Participation in Hall Activities : Literary, Dramatics & Choreography