

Rachit Bansal

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RESEARCH INTERESTS

Interpretability and Explainability, Natural Language Processing, Computational Linguistics, Neural Machine Translation, Transfer Learning, Representation Learning

TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript, MATLAB, HTML/CSS, Unix Shell Scripting
Frameworks: PyTorch, Tensorflow, HuggingFace, FairSeq, Flask
Miscellaneous: Selenium, Seaborn, Material Design, Bootstrap, MongoDB

EDUCATION

Delhi Technological University New Delhi, India
Bachelor of Technology (**B.Tech**) in Electrical Engineering July 2022 (expected)
CPI: 8.84/10

RESEARCH EXPERIENCE

Adobe India
Research Intern (Host: [Balaji Krishnamurthy](#)) May 2020 – Present
Making language models more factual and commonsense aware by enhancing their reasoning abilities.

Laboratory for Computational Social Systems (LCS2) IIIT Delhi, New Delhi
Undergraduate Student Researcher (Advisor: [Dr. Tanmoy Chakraborty](#)) May 2020 – May 2021
Retrieving and detecting closed-domain misinformation across social networks.

Cuneiform Digital Library Initiative (CDLI) University of Oxford, UK
Research Intern (Advisors: [Dr. Jacob Dahl](#) and [Dr. Niko Schenk](#)) June 2020 – September 2020
Investigating machine translation techniques for low-resource cuneiform languages.

Samsung Research Lab DTU, New Delhi
Undergraduate Student Researcher (Advisor: [Dr. Divyashikha Sethia](#)) October 2019 – May 2020
Using gaze localisation to study sustained attention on a mobile device.

PUBLICATIONS

- Danish Pruthi, **Rachit Bansal**, Bhuvam Dhingra, Livio Baldini Soares, Michael Collins, Zachary C. Lipton, Graham Neubig and William W. Cohen. “**Evaluating Explanations: How much do explanations from the teacher aid students?**” Transactions of the Association for Computational Linguistics (**TACL**) (under review) [[Preprint](#)]
- Rachit Bansal**, Himanshu Choudhary, Ravneet Punia, Niko Schenk, Jacob L Dahl and Émilie Pagé-Perron “**How Low is Too Low? A Computational Perspective on Extremely Low-Resource Languages**” The 59th Annual Meeting of the Association for Computational Linguistics- Student Research Workshop (**ACL-IJCNLP SRW 2021**) (under review) [[Preprint](#)]
- Rachit Bansal**, William Scott, Nidhi Sultan and Tanmoy Chakraborty “**Combining exogenous and endogenous signals with a co-attention network for early fake news detection**” The 25th Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD 2021**) [[arXiv](#), [Slides](#)]
- William Scott, **Rachit Bansal**, Abhay Kaushik, Tanmoy Chakraborty and Shubhashis Sengupta “**Cross-SEAN: A Cross-Stitch Semi-Supervised Neural Attention Model for COVID-19 Fake News Detection**” Applied Soft Computing [[arXiv](#)]

TEACHING

Coding Blocks New Delhi, India
– Student Instructor- Reinforcement Learning (Online) March 2020 - May 2020

- Recorded 10-hours worth of lectures and held a number of live webinars. Collaborated with course mentors to build project ideas, assignments and quizzes.

– Teaching Assistant- Machine Learning with Deep Learning June 2019 - August 2019

- Conducted classes and doubt sessions for a batch of 60 senior undergraduate students from all across the country. Built course quizzes and programming assignments in collaboration with other TAs.

ACADEMIC PROJECTS

Evaluating Explanations for NLP

Worked with [Danish Pruthi](#) to empirically investigate attribution methods. Established a student-teacher communication paradigm for automatic evaluation of source-side attributions, without the need of human intervention and judgment.

Chrome-SEAN: A Browser Extension to Detect Fake News¹

Curated an easy to use chrome extension based on our research work of detecting misinformation, Cross-SEAN, to predict the possibility of a tweet status being fake.

Power Forecasting using User Behaviour Learning²

Worked under the supervision of [Dr. Kapil Sharma](#) to integrate parallel functionalities including GHI Prediction, Appliance Scheduling, and Smart Plugs.

AWARDS & HONOURS

Student- [LxMLS](#): 2021

One of the selected students to attend the 11th Lisbon Machine Learning Summer School, featuring some excellent lectures and sessions.

Fellow- Fatima Predoctoral [Fellowship](#), 2021

One of the selected few fellows for the 9-month fellowship, aimed at research collaboration and mentorship for aspiring PhD students.

Literary Prodigy Award, 2015

Awarded by The Young Poets Network, UK, for my endeavours in the field of English Literature.³

RELEVANT SERVICE & POSITIONS

- **Volunteer:** NAACL 2021, ICLR 2021, EMNLP 2020, NeurIPS 2020, ICML 2020 & ACL 2020
- **Co-Founder**, Code to School, An initiative to collaborate with schools across the country and teach high school students various programming languages and computer science skills.
- **Mentor**, Tensorflow, Google Code-In
- **ML Lead**, Google Developer Student Club, DTU Chapter
- **Joint Secretary**, Sahitya, the Literary and Debating Society of DTU

¹[ChromeStore/Chrome-SEAN](#)

²[RachitBansal/Power-Forecasting](#)

³Check out some of my [poetry](#)