

Iknoor Singh

<https://iknoorjobs.github.io/>

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Education

Doctor of Philosophy, Ph.D. - Computer Science

Sept 2020 - Present

The University of Sheffield, Sheffield, UK

Supervisors: Carolina Scarton and Kalina Bontcheva

Award: Fully Funded European Commission H2020 Scholarship

Bachelor of Engineering (B.E.) with Honours - Information Technology

Sept 2016 - June 2020

Panjab University, Chandigarh, India

Award: Undergraduate Research Scholarship (4th year)

Experience

Graduate Teaching Assistant (Part-Time)

Sept 2021 - Present

Text Processing module COM4115 and COM6115

Department of Computer Science, University of Sheffield, UK

Summer Intern - Agence France-Presse (AFP), Paris, France

June - July 2021

Advised by Denis Teyssou

Developed a tool to automatically detect the language of the text in misinformation images as well as scene text recognition for languages that fact-checkers do not master very well. The tool aims to assist fact-checkers at AFP to debunk multimodal multilingual misinformation prevalent on social media platforms.

Visiting Researcher - NLP Group, The University of Sheffield, UK

Jan - July 2020

Advised by Kalina Bontcheva and Carolina Scarton

Worked on WeVerify debunk ingestion setup for decentralised content tracking and debunking. We trained a COVID-19 disinformation classifier and did an extensive analysis of different categories with respect to time, volume, modality and origin source. I also developed an algorithm for automated source extraction for quoted text in news articles. The work was funded by the European Commission H2020 WeVerify.

Summer Intern - IBM Research Lab, India

June- Sept 2019

Advised by Sumit Bhatia

A political ideology detection corpus was developed to visually compare the sentiment scores of news articles with different biases and partisanship. This project was done as a part of IBM Global Remote Mentoring.

Research Intern - Queen's University Belfast, UK

Jan - May 2019

Advised by Deepak Padmanabhan

Implemented different computational formulations of textual coherence using state-of-the-art methods in natural language processing, to analyze the coherence of fake news articles vis-a-vis legitimate ones.

Research Intern - Design Innovation Centre Lab, India

June- Dec 2018

Advised by Naveen Aggarwal

Implemented text preprocessing pipeline for low-resourced Gurmukhi script and utilised it for training clustering models on multi-domain news dataset. In addition, I worked on plagiarism detection for Punjabi language documents. This project was funded by MHRD (Indian Ministry of Human Resource Development).

Publications

Iknoor Singh, Kalina Bontcheva, and Carolina Scarton. "The False COVID-19 Narratives That Keep Being Debunked: A Spatiotemporal Analysis." arXiv preprint arXiv:2107.12303 (2021). (Under Review)

Iknoor Singh, Carolina Scarton, and Kalina Bontcheva. "Multistage BiCross encoder for multilingual access to COVID-19 health information", *PLOS ONE Journal* 16(9): e0256874 (2021).

Kokil Jaidka, Andrea Ceolin, **Iknoor Singh**, Niyati Chhaya, and Lyle Ungar. "WikiTalkEdit: A Dataset for modelling Editors' behaviours on Wikipedia." In *Proceedings of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2021)*.

Xingyi Song, Johann Petrak, Ye Jiang, **Iknoor Singh**, Diana Maynard, and Kalina Bontcheva "Classification Aware Neural Topic Model and its Application on a New COVID-19 Disinformation Corpus", *PLOS ONE Journal* 16(2): e0247086 (2021).

Kokil Jaidka, **Iknoor Singh**, Jiahui Liu, Niyati Chhaya and Lyle Ungar "A report of the CL-Aff OffMy-Chest Shared Task: Modeling Supportiveness and Disclosure", in *Proceedings of the 3rd Workshop on Affective Content Analysis @ AAAI (AffCon2020)*

Iknoor Singh, Deepak P and Anoop K, "On the Coherence of Fake News Articles", *Proceeding of ECML/PKDD 2020 News Recommendation and Analysis Workshop*. 2020

Iknoor Singh, Vijay Paul Singh and Naveen Aggarwal, "Comparative Study on Punjabi Document Clustering", in *International Conference on Communication and Intelligent Systems (ICCIS 2019)*

Pranav Shankar, Rajat Kaushal and **Iknoor Singh**, "Analyzing Varied Approaches for Forecast of Stock Prices by Combining News Mining and Time Series Analysis", in *IEEE International Conference on Computing, Power and Communication Technologies (GUCON 2019)*, India, 2019.

Akanksha Chuchra, **Iknoor Singh**, Vijay Paul Singh and Naveen Aggarwal, "Similarity Analysis & Plagiarism Detection for Punjabi Documents using NLP", in *Proceedings of the 11th Annual ACM India Compute Conference*, Chandigarh, India, 2018. (Poster)

Personal Projects

Automatic Evaluation

- Got **1st prize** in an international level hackathon conducted by IIT BHU.

Used natural language processing to build an app for automated assessment of subjective answers by checking the semantic similarity of the solution given by the user with that of the original correct answer in the database and compute marks.

Crime Mapping and Prediction

- Got **3rd prize** from over 130 teams in a national level hackathon conducted by Nagarro.

Implemented an algorithm that takes safety as the constraint to compute the safest optimum path from one place to another. Also, deployed a supervised machine learning model for crime prediction at a particular place and at a particular time

Search Through Video

- Got **1st prize** in a hackathon conducted by Panjab University, Chandigarh.

Developed an app to search through the video to find the exact time at which the sub-topic is being taught or discussed in a video. This prevents manual searching through long videos.

Achievements and Awards

- ❑ **Scholarship** for working on a research project at my institute, as a part of research collaboration between Panjab University and King Abdulaziz University, Saudi Arabia.

- ❑ Got selected as **Microsoft Student Partner** for the academic year 2017-18.
- ❑ Team lead at **AIESEC**, the world's largest youth-run organization associated with the UN.
- ❑ Got **24th** rank in India in Code-n-counter competitive programming conducted by HackerEarth.
- ❑ **Shared Task Organizer** of Interactional Affect (The OffMyChest Shared Task) at the third Affective Content Analysis workshop@AAAI 2020 together with Adobe and the University of Pennsylvania.
- ❑ Represented my school at **International CBSE Summit** 2014.
- ❑ An active member of **SOREM** society (NGO), a Society for Rehabilitation of Mentally Challenged where I have been involved in various social events including teaching and helping disabled children.

Coding Skills

- ❑ **Python** and the associated data analysis and machine learning libraries.
- ❑ **C/C++**