<div align="center"><u>**Resume**</u></div>

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Education Qualification

- **Ph.D.** from **Indian Institute of Technology Bombay** in the area of **Natural Language Processing (NLP)** with **8.14 CGPA**, under the guidance of Prof. Pushpak Bhattacharyya (from January 2012 till November 2017).

- **M.Tech.** from **Indian Institute of Information Technology and Management, Gwalior** in 2009 with **7.9 CGPA**.

- **B.Tech.** from **Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal** in 2006 with **78.3%**.

- Higher Secondary from M.P. Board in 2002 with **78.6%** .

- High School from M.P. Board in 2000 with **76.8%**.

Current Position

Assistant Professor in the department of computer science and engineering IIT Roorkee.

Previous Position

Research scientist at **Tata Research Design and Development Center (TRDDC), Pune** from October 2017. In TRDDC, I am working on information extraction in the biomedical domain.

Ph.D. Research Work Summary

I did in PhD in Natural Language Processing. The specific area of research was Sentiment Analysis.

In sentiment analysis, we focused on finding properties in polar words which can extend the scope of traditional sentiment analysis. Essentially, we have observed properties of words other than being positive or negative, *viz.*, dependence on the domain for the polarity orientation, dependence on the domain for the significance, the intensity variation among words bearing the same semantics and the intensity variation among synonymous words. We incorporated these properties in various dimensions of sentiment analysis, *viz.*, in-domain sentiment analysis, cross-domain sentiment analysis, cross-lingual sentiment analysis, star-rating prediction and up-gradation of SentiWordNet for intensity levels.

In addition to finding the fine-grained properties of polar words, we perform an elaborate comparison between significant words determined by statistical tests, such as χ^2 test and *t*-test, and other standard feature building methods (such as unigrams, TFIDF, *etc*.). This comparison is made based on the results of three types of sentiment analysis, *viz.*, in-domain, cross-domain, and cross-lingual.

Publications:

1. **R Sharma**, P Bhattacharyya. Detecting Domain Dedicated Polar Words. In Proceedings of International Joint Conference on Natural Language Processing **(IJCNLP) 2013**. Nagoya, Japan.
2. **R Sharma**, P Bhattacharyya. A Sentiment Analyzer for Hindi Using Hindi Senti Lexicon. In Proceedings of International Conference on Natural Language Processing (**ICON**) 2014. Goa, India.
3. **R Sharma**, M Gupta, A Agarwal, P Bhattacharyya. Adjective Intensity and Sentiment Analysis. In Proceedings of Empirical Methods in Natural Language Processing **(EMNLP) 2015**. Lisbon, Portugal.
4. **R Sharma**, P Bhattacharyya. Domain Sentiment Matters: A Two Stage Sentiment Analyzer. In Proceedings of International Conference on Natural Language Processing (**ICON**) 2015. Trivandrum, India.
5. **R Sharma**, P Bhattacharyya. High, Medium or Low? Detecting Intensity Variation Among polar synonyms in WordNet. In Proceedings of Global WordNet Conference **(GWC) 2016**. Bucharest, Romania.
6. **R Sharma**, Sudha Bhingardive, P Bhattacharyya. Meaning Matters: Senses of Words are More Informative than Words for Cross-domain Sentiment Analysis. In Proceedings of International Conference on Natural Language Processing (**ICON**) 2016. Varanasi, India.
7. **R Sharma**, A somani, L Kumar, P Bhattacharyya, Sentiment Intensity Ranking among Adjectives Using Sentiment Bearing Word Embeddings. In Proceedings of Empirical Methods in Natural Language Processing **(EMNLP) 2017**. Copenhagen, Denmark.

8. **R Sharma**, D Mondal, P Bhattacharyya. A comparison among Significance Tests and Other Feature Building Methods for Sentiment Analysis: A First Study. Published in Springer LNCS Journal 2017, also presented in International Conference on Intelligent Text Processing and Computational Linguistics **(CICLing) 2017**. Budapest, Hungary.

9. **R Sharma**, P Bhattacharyya, S Dandapat, H Bhatt, Identifying Transferable Information Across Domains Using $\chi 2$ test and Cosine-similarity for Cross-domain Sentiment Classification. 56th Annual Meeting of the Association for Computational Linguistics **(ACL) 2018**. Melbourne, Australia.

10. **R Sharma**, G K Palshikar, S Pawar, An Unsupervised Approach for Cause Effect Relation Extraction from Biomedical Text. 23rd International Conference on Natural Language & Information Systems **(NLDB) 2018**, Paris, France.

11. R Sharma, S Sangawan, G K Palshikar, Cold is a Disease and D-cold is a Drug: Identifying Biological Types of Entities in the Biomedical Domain. (Under Evaluation)

12. R Sharma, P Bhattacharyya, Welcome vs. Heartily Welcome : Emotion Term Frequency Intensifies Polarity Orientation. (Under Evaluation)

Patent

METHOD AND SYSTEM FOR TRAINING A TARGET DOMAIN CLASSIFIER TO LABEL TEXT SEGMENTS (Link: http://www.freepatentsonline.com/y2018/0068231.html)
Inventors: **Raksha Sharma**, Sandipan Dandapat, Himanshu Sharad Bhatt (Filed by Xerox Research Center of India)

Link for all the published papers: https://scholar.google.co.in/citations?user=V9oafzsAAAAJ&hl=en

Academic Achievements

- Offer of Appointment for the post of **Scientist – C** from **Indian Space Research Organization** in 2009.

- **AIR 298** in GATE (Graduate Aptitude Test in Engineering) IT, 2007.

- Certificate of Merit for securing **4th position** in Btech. at college level.

- PhD work selected in **IRISS 2016**: 10th Inter-Research-Institute Student Seminar in Computer Science.

Invited Talks (Oral/Poster)

- Invited talk at **ACM IKDD CoDS 2016**, held in Pune from 13th March to 16th March.

- The work titled as "Adjective Intensity and Sentiment Analysis" is selected for an Oral discussion at **IRISS 2017:** 11th Inter-Research-Institute Student Seminar in Computer Science co-located with ACM India Annual Event.

- "Sentiment Bearing Word Embeddings for Sentiment Analysis" in **AIAI 2017**: Amazon India Artificial Intelligence Summit, held in Bangalore, India on 18th September 2017.

- A talk on the PhD work in **Google NLP Summit**, 25 - 27 September 2017 in Zurich, Switzerland.

- A talk on "Exploiting Word Properties for Sentiment Analysis" in IIT Delhi on 26th Feb 2018

Conducted Tutorial and Workshop

- **A half day Workshop** on "Sentiment Analysis" at VIVA Institute of Engineering and Technology Mumbai, from 20-24, June 2016.

- **A half day Tutorial** on "Statistical Significance Tests and Its Impacts in Sentiment Analysis" in **ICON-2016** Conference, 17-20, Dec 2016, IIT(BHU), Varanasi, India.

- **A half day Tutorial** on "Biomedical Text and Natural Language Processing" in **ICON-2018** Conference, 15-18, Dec 2018.

Experience

- Worked as a **Lecturer** in Nagaji Institute of Technology and Management Gwalior from February 2007 till July 2007. **(6 Months)**
- Worked as a **Lecturer** in the Department of Computer Science & Engineering at J**aypee University**

(Deemed University), Guna, M.P. from 6th July 2009 till 6th January 2012. **(2 Years and 6 Months)**
- **Intern** at **Xerox Research Center of India (XRCI)** from June 2015 till December 2015 (**7 Months**).
- **Adjunct faculty** for Machine Learning at Aegis School of Business, Data Science, Cyber Security & Telecommunication from September 2017.

Research Projects

1. Identification of **domain-dependence of words** for **in-domain sentiment analysis**.

2. Identification of **domain-dependence of words** for **cross-domain sentiment analysis**.

3. Identification of **polarity-intensity variation among words** for **star-rating prediction**.

4. Identification of **polarity-intensity variation** among synonymous words in **SentiWordNet**.

5. Study of various **significance tests** and **other feature building methods** with respect to sentiment analysis.

S. No.	Courses Taken at IITB
1	Speech and Natural Language Processing and the Web
3	Implementation Techniques for Relational Database Systems
4	Spatial Databases
5	Communication and Presentation Skills
6	Topics in Natural Language Processing
7	Probabilistic Models
8	Foundations of Machine Learning

Course Projects and Assignments

1. Part Of Speech Tagger for BNC corpus, (Guided by Prof. Pushpak Bhattacharya, 2012) .

2. Next Word Prediction system through Language Model, (Guided by Prof. Pushpak Bhattacharya, 2012) .

3. Seminar on Subjectivity Detection in the text for the purpose of sentiment analysis.

Technical Skills

- **Programming Languages:** C, C++, java, python, bash.
- **Operating Systems:** Linux, Ubuntu, Windows.
- **Machine Learning Tool:** WEKA, Scikit Learn, Java-ML.
- **Tools:** Octave, R.
- **Writing Tool:** Latex, MS Word.