

# Rajdeep Mukherjee

SENIOR RESEARCH SCIENTIST, NIELSEN IQ (PH.D. CSE, IIT KHARAGPUR)

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## Summary

I am working as a Senior AI Research Scientist with NielsenIQ. I completed my Ph.D. from the Dept. of CSE, IIT Kharagpur under the supervision of [Prof. Pawan Goyal](#) and [Prof. Niloy Ganguly](#). My primary area of research is Natural Language Processing (NLP). My Ph.D. thesis focuses on modeling and evaluating text summarization solutions across domains such as e-commerce, finance, disaster mitigation, law, and tourism. My research interests include Large Language Models (LLMs), Domain-specific Adaptation of LLMs, Continual Pre-training Techniques, Instruction Tuning, Parameter-Efficient Fine-tuning, Information Extraction, and Text Summarization. I will be happy to discuss ideas / collaborations / opportunities along these directions. I am also interested in AI for Health and Social Good.

## Education

### Indian Institute of Technology (IIT), Kharagpur

PHD IN COMPUTER SCIENCE AND ENGINEERING

Kharagpur, India

Jan 2018 - May 2023

- Thesis Topic - Domain-Specific Text Summarization: Modeling and Evaluation
- Advisors: Prof. Pawan Goyal, Prof. Niloy Ganguly

### Indraprastha Institute of Information Technology (IIIT) Delhi

M.TECH IN COMPUTER SCIENCE AND ENGINEERING

Delhi, India

Jul 2015 - Jul 2017

- CGPA: 9.11, Ranked 1st in Information Security Specialization (with thesis)
- Supervisor: [Prof. Sambuddho Chakravarty](#) | [M.Tech Thesis](#)

### Jadavpur University, Kolkata

B.E. IN INFORMATION TECHNOLOGY

Kolkata, India

Jul 2007 - Jun 2011

- CGPA: 8.59, University Gold Medalist, TCS Best Student Project awardee.
- Supervisor: [Prof. Samiran Chattopadhyay](#) | [Bachelors Thesis](#)

### Kendriya Vidyalaya (ONGC) Chandkheda, Ahmedabad, Gujarat

ALL INDIA SENIOR SCHOOL CERTIFICATE EXAMINATION (AISSCE)

Ahmedabad, India

2007

- Percentage: 91.8 %

### Kendriya Vidyalaya (ONGC) Chandkheda, Ahmedabad, Gujarat

ALL INDIA SECONDARY SCHOOL EXAMINATION (AISSE)

Ahmedabad, India

2005

- Percentage: 94.2 %
- Adjudged School Topper; 2nd place, KVS Ahmedabad Region (with 47+ schools)

## Work Experience

### NielsenIQ

SENIOR RESEARCH SCIENTIST

Pune, India

Jan 2024 - Present

- Working on various problems related to automation of market research using AI/NLP.

### Amazon Science

APPLIED SCIENTIST II INTERN

Bangalore, India

Apr - Oct 2023

- Worked towards improving customer search experience on e-commerce websites using Large Language Models.
- Industry Track paper accepted at WSDM 2024, Full paper accepted at KDD 2025 (ADS Track)

### IBM Research Labs

RESEARCH INTERN

Delhi, India

May - Jul 2018

- Worked towards designing a CNN-based solution for identifying and recognizing bird sounds.
- Secured **7th rank worldwide** (1st in India) in the **Bird Audio Detection** task as part of [IEEE AASP DCASE2018 Challenge](#).

### PricewaterhouseCoopers (PwC) India

TECHNOLOGY CONSULTANT

Kolkata, India

Aug 2011 - Jul 2015

- Worked as a Business Intelligence (BI) developer and Data Modeler in the Advisory Line of Service (LOS).
- Led projects in data warehousing, data modeling and BI using Microsoft technologies like MSBI suite, Visual Studio, MS SQL Server 2012 etc.

## Selected Publications

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### Using Instruction-Tuned LMs for Scalable Use Case-Based Shopping - Where Customers Meet Their Needs

Rajdeep Mukherjee, Sonali Singh, Sachin Farfade

[Paper](#)

KDD 2025

### Parameter-Efficient Instruction Tuning of Large Language Models for Extreme Financial Numeral Labelling

Subhendu Khatuya, Rajdeep Mukherjee, Akash Ghosh, Manjunath Hegde, Koustuv Dasgupta, Niloy Ganguly, Saptarshi Ghosh, Pawan Goyal

[Paper](#) | [Code](#) | [Citation](#)

NAACL 2024

### Scaling Use-case Based Shopping Using LLMs

Sachin Farfade, Sachin Vernekar, Vineet Chaoji, Rajdeep Mukherjee

[Paper](#) | [Slides](#) | [Video](#) | [Citation](#)

WSDM 2024

### CONTRASTE: Supervised Contrastive Pre-training With Aspect-based Prompts For Aspect Sentiment Triplet Extraction

Rajdeep Mukherjee, Nithish Kannen, Saurabh Kumar Pandey, Pawan Goyal

[Paper](#) | [Code](#) | [Poster](#) | [Citation](#)

EMNLP 2023

### ECTSum: A New Benchmark Dataset For Bullet Point Summarization of Long Earnings Call Transcripts

Rajdeep Mukherjee, Abhinav Bohra, Akash Banerjee, Soumya Sharma, Manjunath Hegde, Afreen Shaikh, Shivani Shrivastava, Koustuv Dasgupta, Niloy Ganguly, Saptarshi Ghosh, Pawan Goyal

[Paper](#) | [Dataset & Code](#) | [Poster](#) | [Slides](#) | [Video](#) | [Citation](#)

EMNLP 2022

### MTLTS: A Multi-Task Framework To Obtain Trustworthy Summaries From Crisis-Related Microblogs

Rajdeep Mukherjee, Uppada Vishnu\*, Hari Chandana Peruri\*, Sourangshu Bhattacharya, Koustav Rudra, Pawan Goyal, Niloy Ganguly

[Paper](#) | [Code](#) | [Poster](#) | [Slides](#) | [Video](#) | [Citation](#)

WSDM 2022

### PASTE: A Tagging-Free Decoding Framework Using Pointer Networks for Aspect Sentiment Triplet Extraction

Rajdeep Mukherjee, Tapas Nayak, Yash Butala, Sourangshu Bhattacharya, Pawan Goyal

[Paper](#) | [Code](#) | [Poster](#) | [Slides](#) | [Video](#) | [Citation](#)

EMNLP 2021

### Read what you need: Controllable Aspect-based Opinion Summarization of Tourist Reviews

Rajdeep Mukherjee, Hari Chandana Peruri, Uppada Vishnu, Pawan Goyal, Sourangshu Bhattacharya, Niloy Ganguly

[Paper](#) | [Code](#) | [Slides](#) | [Video](#) | [Citation](#)

SIGIR 2020

## Professional Activities

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### Program Committee Member

COLING'25, AAAI'24,'23], WSDM'24, EMNLP['23,'22], ACL'23, EACL'23, SIGIR'22

### Reviewer/Sub-Reviewer for Conference

COLING'25, NAACL['24,'22], AAAI['24,'23], WSDM'24, EMNLP['23,'22,'20,'19], ACL['23,'22], EACL'23, SIGIR['22,'21,'20], NEURIPS'21, SDM'21, CODS-COMAD['21,'19], LREC'20

### Reviewer/Sub-Reviewer for Journal

TWEB['22,'20], COMPUTER SPEECH AND LANGUAGE'22, IJDRR'21, TCSS'20

## Teaching Assistance

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Spring '22	<b>CS60075: Natural Language Processing</b> , Instructor: Prof. Pawan Goyal	IIT Kharagpur
Autumn '21	<b>CS60092: Information Retrieval</b> , Instructor: Prof. Saptarshi Ghosh	IIT Kharagpur
Autumn '21	<b>noc21-cs102: Natural Language Processing</b> , Instructor: Prof. Pawan Goyal	NPTEL
Spring '21	<b>CS60075: Natural Language Processing</b> , Instructor: Prof. Pawan Goyal	IIT Kharagpur
Autumn '20	<b>CS60083: Parameterized Algorithms</b> , Instructors: Prof. Palash Dey, Prof. Sudeshna Kolay	IIT Kharagpur
Spring '20	<b>CS60092: Information Retrieval</b> , Instructors: Prof. Pawan Goyal, Prof. Saptarshi Ghosh	IIT Kharagpur
Autumn '19	<b>CS29003: Algorithms-1 Lab</b> , Instructors: Prof. Pawan Goyal, Prof. Animesh Mukherjee	IIT Kharagpur
Autumn '19	<b>noc19-cs56: Natural Language Processing</b> , Instructor: Prof. Pawan Goyal	NPTEL
Spring '19	<b>Programming and Data Structures Lab</b> , Instructor: Prof. Rogers Mathew	IIT Kharagpur
Autumn '18	<b>Programming and Data Structures Lab</b> , Instructors: Prof. Rogers Mathew, Prof. Sudebkumar Prasant Pal	IIT Kharagpur
Spring '17	<b>CSE352/CSE552: Security Engineering</b> , Instructor: Prof. Sambuddho Chakravarty	IIIT Delhi

## Scholarships & Travel Grants

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2022	<b>Microsoft Research Travel Grant</b> , awarded for attending WSDM 2022.	Microsoft Research
2022	<b>ACM-India and IARCS Travel Grant</b> , awarded for attending WSDM 2022.	ACM-India IARCS
2022	<b>SIGIR Student Travel Grant</b> , awarded for registering the paper.	WSDM 2022
2021	<b>SIGIR Student Travel Grant</b> , awarded for registering the paper and attending the conference (virtually).	SIGIR 2021
2020	<b>SIGIR Student Travel Grant</b> , awarded for registering the paper and attending the conference (virtually).	SIGIR 2020

## Honors & Awards

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2013	<b>PwC Experience Award</b> , awarded twice for demonstrating PwC Core values and behaviors.	Kolkata, India
2012	<b>PwC Above and Beyond Award</b> , awarded by Sudipto Ghosh, Partner, PwC.	Kolkata, India
2011	<b>TCS Best Student Project Award and University Gold Medal</b> , jointly awarded by Tata Consultancy Services and Jadavpur University.	Kolkata, India
2010	<b>2nd place, IBM Technical Quiz</b> , INSTRUO 2010 held at IEST, Shibpur in the Technology Area on Green IT.	Kolkata, India
2005	<b>2nd place, AISSE, KVS Ahmedabad Region</b> , selected for CSIR Program on Youth for Leadership in Science.	Ahmedabad, India

## Extracurricular Activities

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2021	<b>Judge</b> , Open IIT: Eastern Vocal Competition	Kharagpur, India
2018	<b>Permanent Membership</b> , Eastern Technology Music Society (ETMS), IIT Kharagpur.	Kharagpur, India
2015	<b>Permanent Membership</b> , AudioBytes, Music Club, IIIT Delhi.	Delhi, India
2013	<b>Silvers Plate Runners Up</b> , Merchants' Cup Badminton Tournament.	Kolkata, India
2011	<b>Multiple awards</b> , National / State level Singing Competitions.	Kolkata, India
2010	<b>Member, Organizing Committee</b> , SRIJAN 2010, Annual Technical Fest, Jadavpur University.	Kolkata, India

## References

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### Dr. Niloy Ganguly

Professor, Department of Computer Science and Engineering, IIT Kharagpur

[NILOY@CSE.IITKGP.AC.IN](mailto:NILOY@CSE.IITKGP.AC.IN)

### Dr. Pawan Goyal

Associate Professor, Department of Computer Science and Engineering, IIT Kharagpur

[PAWANG@CSE.IITKGP.AC.IN](mailto:PAWANG@CSE.IITKGP.AC.IN)

### Dr. Saptarshi Ghosh

Associate Professor, Department of Computer Science and Engineering, IIT Kharagpur

[SAPTARSHI@CSE.IITKGP.AC.IN](mailto:SAPTARSHI@CSE.IITKGP.AC.IN)