Rajdeep **Mukherjee**

Ph.D. Research Scholar (Institute), CNeRG, Dept. of CSE, IIT Kharagpur

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Summary

I am a fifth-year PhD Student at the Dept. of CSE, IIT Kharagpur advised by Prof. Pawan Goyal and Prof. Sourangshu Bhattacharya. As part of the Complex Networks Research Group (CNeRG), I also actively collaborate with Prof. Niloy Ganguly and Prof. Saptarshi Ghosh. My research interests lie at the intersection of Natural Language Processing, Information Retrieval, and Computational Social Science. My works are primarily focused towards designing effective solutions for the tasks of Aspect-based Sentiment Analysis, and Text Summarization in different domains. I did my Masters from IIIT Delhi and Bachelors from Jadavpur University. Additionally, I have four years of professional experience with PwC India specializing in Data Warehousing, Data Modeling and Business Intelligence using Microsoft Technologies.

Education

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

PhD in Computer Science and Engineering
Jan 2018 - Present

- Domain of Research - Natural Language Processing, Information Retrieval, Computational Social Science
- Supervisors: Prof. Pawan Goyal, Prof. Sourangshu Bhattacharya

Indraprastha Institute of Information Technology (IIIT) Delhi
Delhi, India

M.Tech in Computer Science and Engineering
Jul 2015 - Jul 2017

- CGPA: 9.11, Ranked 1st in Information Security Specialization (with thesis)
- Supervisor: | M.Tech Thesis

Jadavpur University, Kolkata
Kolkata, India

B.E. in Information Technology
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
Ahmedabad, India

All India Senior School Certificate Examination (AISSCE)
2007

- Percentage: 91.8 %

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

All India Secondary School Examination (AISSE)
2005

- Percentage: 94.2 %
- Adjudged School Topper.

Work Experience

IBM Research Labs
Delhi, India

Research Intern
May - Jul 2018

- Worked with Dipyaman Banerjee and Kuntal Dey towards the development of an efficient deep learning-based solution for identifying and recognizing sounds that do not contain a speech component.
- Participated in the **Bird Audio Detection** task as a part of IEEE AASP DCASE2018 Challenge.
- Our team secured **7th rank worldwide** (1st in India) among all the participants. Challenge Results
- Our work was accepted as a **Poster** at DCASE2018 Workshop, held in Surrey, UK (November 2018).

Indian Institute of Technology Kharagpur
Kharagpur, India

Senior Project Officer
Aug - Dec 2017

- Worked on Online Social Network Analysis as part of CNeRG.
- Explored areas like Opinion Dynamics, Rumor Detection, and Click-bait Detection.

PricewaterhouseCoopers (PwC) India
Kolkata, India

Technology Consultant
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.
- Held several positions of responsibility and was instrumental in managing client expectations and relationships.

IBM IRL, Bangalore
Kolkata, India

Intern, IBM Remote Mentoring Program
Sep - Dec 2010

- Worked as an intern under the supervision of Dr. Chiranjib Sur, (the then) Research Scientist, High Performance Computing Group

Selected Publications

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

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

Understanding the Role of Affect Dimensions in Detecting Emotions from Tweets: A Multi-task Approach

Rajdeep Mukherjee, Atharva Naik*, Sriyash Poddar*, Soham Dasgupta, Niloy Ganguly

Paper | Code | Blog | Poster | Slides | Video | Citation

SIGIR 2021

Reproducibility, Replicability and Beyond: Assessing Production Readiness of Aspect Based Sentiment Analysis in the Wild

Rajdeep Mukherjee*, Shreyas Shetty*, Subrata Chattopadhyay, Subhadeep Maji, Samik Datta, Pawan Goyal

Paper | Code | Slides | Video | Citation

ECIR 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

Addressing Forwarder's Dilemma: A Game-Theoretic Approach to Induce Cooperation in a Multi-hop Wireless Network

Saswati Mukherjee, Sreya Dey, **Rajdeep Mukherjee**, Matangini Chattopadhyay, Samiran Chattopadhyay, Debarshi Kumar Sanyal

Paper | Citation

Third International Conference on Advances in Communication, Network, and Computing, CNC 2012

Professional Activities

Program Committee Member
AAAI'23, EACL'23, EMNLP'22, SIGIR'22

Reviewer/Sub-Reviewer for Conference
AAAI'23, EACL'23, EMNLP'22, SIGIR'22, NAACL'22, ACL'22, NeurIPS'21, SIGIR'21, SDM'21, CODS-COMAD'21, EMNLP'20, SIGIR'20, LREC'20, EMNLP'19, CODS-COMAD'19

Reviewer/Sub-Reviewer for Journal
Computer Speech and Language'22, IJDRR'21, TWEB'20, TCSS'20

Teaching Assistance

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

Scholarships & Travel Grants

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

Honors & Awards

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

Extracurricular Activities

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

References

Dr. Niloy Ganguly

Professor, Department of Computer Science and Engineering, IIT Kharagpur

NILOY@CSE.IITKGP.AC.IN

Dr. Pawan Goyal

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

PAWANG@CSE.IITKGP.AC.IN

Dr. Sourangshu Bhattacharya

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

SOURANGSHU@CSE.IITKGP.AC.IN