# Rajdeep **Mukherjee**

PH.D. RESEARCH SCHOLAR (INSTITUTE), CNeRG, DEPT. OF CSE, IIT KHARAGPUR

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## Summary

I am a fourth-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 work on problems that lie at the intersection of Natural Language Processing, Information Retrieval, and Computational Social Science. 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

# Publication

**MTLVS: A Multi-Task Framework to Verify and Summarize Crisis-Related Microblogs**

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

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 | Poster | Slides | Code

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 | Blog | Poster | Slides | Code | 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 | Slides | Code | 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 | Slides | Code | 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

# Reviewer/Sub-Reviewer

**Conference**

NeurIPS'21, SIGIR'21, SDM'21, CODS-COMAD'21, EMNLP'20, SIGIR'20, LREC'20, EMNLP'19, CODS-COMAD'19

**Journal**

IJDRR'21, TWEB'20, TCSS'20

# Teaching Assistance

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| 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

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| 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

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| 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

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| 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