

Anurag Roy

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EDUCATION

Indian Institute of Technology Kharagpur Ph.D. in Multimodal Machine Learning, Advisor: Prof. Saptarshi Ghosh	Kharagpur, India 2019–Current
Indian Institute of Engineering Science and Technology Shibpur B.E.(Hons), CGPA: 8.13/10	Howrah, India 2013–2017

EXPERIENCE

India ML Team, Amazon Development Center India Pvt. Ltd. Applied Scientist Intern <ul style="list-style-type: none">– Predicting Product Trust Score– Developed machine learning models to Predict Trust Score	Bangaluru, India May 2019 - Jul 2019
Polaris Networks(a Motorola Solutions Company) Software Developer <ul style="list-style-type: none">– Development of 5G network test tools<ul style="list-style-type: none">* Developed 5g core network stack* Developed MCPTT tester* Nominated for Star Performer Award for the year 2017	Kolkata, India Aug 2017 - Jul 2018
CSE Department, IIT Kanpur Research Intern <ul style="list-style-type: none">– A Language Independent Morphological Clustering Algorithm<ul style="list-style-type: none">* Analyzed different kinds of morphological variations existing over different languages.* Developed of an un-supervised clustering algorithm to capture the morphological variants of a word.	Kanpur, India May 2017 - Aug 2017
CST Department, IIST Shibpur Research Intern <ul style="list-style-type: none">– Rumour Identification in Twitter– Developed using python and scikit-learn a program which identified rumor tweets in real-time by learning from previous data.	Howrah, India Dec 2016 - Jan 2017
CSE Department, IIT Kharagpur Research Intern at CNeRG Lab <ul style="list-style-type: none">– Understanding Relative Importance of Content & Responses on Community Survival in Reddit.<ul style="list-style-type: none">* Developed an on-line survey application in flask and jinja.* Used machine learning models to evaluate accuracy	Kharagpur, India May 2016 - Jul 2016

JOURNAL PUBLICATIONS

- [1] **A. Roy**, S. Ghosh, K. Ghosh, and S. Ghosh, “An unsupervised normalization algorithm for noisy text: A case study for information retrieval and stance detection”, *Journal of Data and Information Quality*, 2021, To appear.
- [2] R. Dey, **A. Roy**, T. Chakraborty, and S. Ghosh, “Sleeping beauties in computer science: Characterization and early identification”, *Scientometrics*, vol. 113, no. 3, pp. 1645–1663, 2017.

CONFERENCE PUBLICATIONS

- [1] Y. Jain and **A. Roy**, “Distributed representation of tags for active zero shot learning[short paper]”, in *8th ACM IKDD CODS and 26th COMAD*, ser. CODS COMAD 2021, Bangalore, India: Association for Computing Machinery, 2021, pp. 228–232, ISBN: 9781450388177.
- [2] **A. Roy**, V. K. Verma, K. Ghosh, and S. Ghosh, “ZSCRGAN: A GAN-based expectation maximization model for zero-shot retrieval of images from textual descriptions”, in *Proceedings of the 29th ACM International Conference on Information and Knowledge Management*, ser. CIKM '20, New York, NY, USA: Association for Computing Machinery, 2020, pp. 1315–1324, ISBN: 9781450368599.
- [3] **A. Roy**, K. Ghosh, M. Basu, P. Gupta, and S. Ghosh, “Retrieving information from multiple sources”, in *Companion Proceedings of the The Web Conference 2018[poster]*, ser. WWW '18, Lyon, France: International World Wide Web Conferences Steering Committee, 2018, pp. 43–44, ISBN: 9781450356404.
- [4] M. Basu, **A. Roy**, K. Ghosh, S. Bandyopadhyay, and S. Ghosh, “A novel word embedding based stemming approach for microblog retrieval during disasters[short paper]”, in *European Conference on Information Retrieval (ECIR) 2017*, Cham: Springer International Publishing, 2017, pp. 589–597, ISBN: 978-3-319-56608-5.
- [5] M. Basu, **A. Roy**, K. Ghosh, S. Bandyopadhyay, and S. Ghosh, “Microblog retrieval in a disaster situation: A new test collection for evaluation”, in *Proceedings of the First International Workshop on Exploitation of Social Media for Emergency Relief and Preparedness co-located with European Conference on Information Retrieval, SMERP@ECIR 2017, Aberdeen, UK, April 9, 2017*, ser. CEUR Workshop Proceedings, 2017, pp. 22–31.
- [6] **A. Roy**, T. Ghorai, K. Ghosh, and S. Ghosh, “Combining local and global word embeddings for microblog stemming[short paper]”, in *Proceedings of the 2017 ACM on Conference on Information and Knowledge Management*, ser. CIKM '17, Singapore, Singapore: Association for Computing Machinery, 2017, pp. 2267–2270, ISBN: 9781450349185.

TEACHING

- **Teaching Assistant** at IIT Kharagpur Spring 2020
Deep Learning (CS60010)
- **Teaching Assistant** at IIT Kharagpur Autumn 2020
Programming & Data Structures Theory (CS10003)
- **Teaching Assistant** at IIT Kharagpur Spring 2019
Machine Learning (CS60050)
- **Teaching Assistant** at IIT Kharagpur Autumn 2019
Programming & Data Structures Theory (CS10001)
- **Teaching Assistant** at IIT Kharagpur Spring 2018
Programming & Data Structures Lab (CS19101)

TECHNICAL SKILLS

- **Programming Languages:** C, C++ ,Python, Java
- **Deep Learning Libraries:** Pytorch, Tensorflow, theano
- **Database Management tools:** MySQL, SQLite
- **Big Data Management:** Pyspark

LANGUAGES

- **Bengali:** Native or bilingual proficiency
- **Enlgish:** Full professional proficiency
- **Hindi:** Limited working proficiency

EXTRACURRICULAR ACTIVITIES

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| • Member at CodeIEST
<i>CodeIEST is the coding society of IEST Shibpur</i> | 2014 –2017 |
| • Member at Robodarshan
<i>Robodarshan is the robotics society of IEST Shibpur</i> | 2016 –2017 |
| • Student volunteer at ACM CODS COMAD
<i>ACM CODS COMAD is a conference on data science and management</i> | Jan 2019 |