Anil Goyal

Research Scientist at NEC Research Labs

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 (d) Nationality: Indian
 (d) Age: 27

Work Experience

Oct, 2018–present Research Scientist, NEC Laboratories Europe, Heidelberg, Germany.

Data Science Applications Group

Nov, 2015–Oct,2018 **Doctoral Researcher**, *LIG, Grenoble and LaHC, Saint-Etienne*, France, **Supervisors:** Prof. Massih-Reza Amini and Dr. Emilie Morvant. **Subject:** Two-Step Hierarchical Multiview Learning using PAC-Bayesian and Boosting based approaches. This project is funded by Rhône-Alpes Region.

Aug-Oct,2015 **Data Science Engineer**, *Cube26 Private Limited*, New Delhi, India. Worked on News Aggregation, News Ad-Banner and News Categorization for the Neon News Android Application.

Feb-Jun, 2015 Research Intern, Laboratoire d'Informatique de Grenoble (LIG), Grenoble, France.

- Masters Thesis at AMA team, LIG, Grenoble under the guidance of Prof. Massih-Reza Amini.
- Worked on Transferring knowledge from a labeled source collection to learn IR functions on an unlabeled target collection
- May-Aug,2014 **Software Developer**, Pyramid Cyber Security & Forensics Private Limited, New Delhi, India.

Cheque Fraud Detection for Punjab National Bank, India using JAVA and MATLAB.

- May-Jul, 2013 **Research Intern**, *University of Hyderabad*, Hyderabad, India.
 - Worked on finding the number of clusters in short text documents under the guidance of Prof. Arun K. Pujari.
 - Ncut-term weighing scheme and spectral clustering using MATLAB.
- May-Jul,2012 **Developer Intern**, Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO, Delhi, India.

Designing and developing Leave Management System and Document Dispatch System using PHP, MySQL, HTML and CSS.

Education

- 2015–2018 **Ph.D. in Machine Learning**, *Université de Lyon*, Lyon, France.
 - **Subject:** Two-Step Hierarchical Multiview Learning using PAC-Bayesian and Boosting based approaches. This project is funded by Rhône-Alpes Region.
- 2014–2015 **Masters of Science in Informatics (MOSIG)**, *ENSIMAG, Grenoble INP*, Grenoble, France, *(with honors)*.

Subjects: Machine Learning, Information Access and Retrieval, Computer Vision, Advanced Human-Computer Interaction, Computational Geometry and Medical Imaging, Simulation & Robotics.

2010–2014 **Bachelor of Technology**, *The LNMIIT*, Jaipur, India, *CGPA* – 8.69/10. Specialization: Computer Science and Engineering

Research Activities

Project Member of **ANR LIVES** Project (Learning with Interacting Views). (Jan, 2016-September, 2018)

Advising Soroush Seifi, Subject: "A PAC-Bayesian Multiview Study", Laboratoire Hubert Curien, CNRS, Saint-Etienne, France (Apr-Jun,2016).

Co-advised with Prof. Amaury Habrard and Dr. Emilie Morvant

ML Conferences IDA 2018 (Presentation and Poster), CAp 2018 (Presentation and Poster), ECIR 2018 (Volunteer), CAp 2017 (Presentation and Poster), CAp 2016 (Presentation and Poster), NCVPRIPG 2013 (Presentation)

Workshops Deep Learning Workshop 2017, Computational and Statistical Trade-offs in Learning 2016

Teaching Assistance **Database Management Course**, The LNMIIT, Jaipur, India (Jan-May,2012 & Jan-May,2013).

Co-advised with Prof. Subrat K. Dash

Skills

Programming Python, C, JAVA, MATLAB

Tools Terrier IR Platform

Web Development HTML, CSS, PHP, JavaScript, JSP, D3.js

Databases MySQL, Oracle

Language English: fluent / French: intermediate / Hindi: native speaker

Positions of Responsibility

ECIR 2018 Volunteer in European Conference on Information Retrieval, Grenoble, France, 2018.

Aug, 2013-Apr, 2014 Vice-Chairperson, IEEE Student Chapter at LNMIIT, Jaipur.

May, 2012-May, 2013 Sub-coordinator of the CYBROS club (Web Development) at LNMIIT, Jaipur.

May,2011-May,2012 Senator in university Gymkhana at LNMIIT, Jaipur.

May,2011-May,2012 Senator In-charge of COSHA (The committee of Students for Hostel Affairs) at LNMIIT, Jaipur.

May,2011-May,2012 Member of the AC-HMC (Academic Council of Hall Management Committee) at LNMIIT, Jaipur.

Achievements

2015-2018 Rhône-Alpes Funding for pursuing PhD.

2013 Google AdCamp, Hyderabad, India.

2007 President Scout Award in National Scout and Guide Activity, India.

Publications

Articles in Peer-Reviewed International Journals

2019 **Anil Goyal**, Emilie Morvant, Pascal Germain, Massih-Reza Amini, "Multiview Boosting by Controlling the Diversity and the Accuracy of View-specific Voters", Neurocomputing

Articles in Peer-Reviewed International Conferences

- 2018 Anil Goyal, Emilie Morvant, Massih-Reza Amini, "Multiview Learning of Weighted Majority Vote by Bregman Divergence Minimization", Intelligent Data Analysis (IDA), 's-Hertogenbosch, the Netherlands. (CORE Rank: A)
- Anil Goyal, Emilie Morvant, Pascal Germain, Massih-Reza Amini, "PAC-Bayesian Analysis for a two-step Hierarchical Mutliview Learning Approach", European Conference on Machine Learning & Principles and Pratice of Knowledge Discovery in Databases (ECML-PKDD), Skopje, Macedonia (CORE Rank: A)

Articles in Peer-Reviewed National Conferences

- 2018 **Anil Goyal**, Emilie Morvant, Massih-Reza Amini, "Learning a Hierarchical Majority Vote for Multiview Learning", French Conference on Machine Learning (CAp), France.
- 2017 **Anil Goyal**, Emilie Morvant, Pascal Germain, "Exptected PAC-Bayesian Theorem and its extension to Multiview Learning", French Conference on Machine Learning (CAp), France.
- 2016 **Anil Goyal**, Emilie Morvant, Pascal Germain, Massih-Reza Amini, "PAC-Bayesian Theorems for Multiview Learning", French Conference on Machine Learning (CAp), France.
- 2015 **Anil Goyal**, Georgios Balikas, Parantapa Goswami, Massih-Reza Amini, Eric Gaussier, "Transfer Learning for IR Model Parameter Tuning", French Conference on Machine Learning (CAp), France.
- 2013 **Anil Goyal**, Mukesh K Jadon, Arun K Pujari, "Spectral Approach to find Number of Clusters of Short-text Documents", IEEE NCVPRIPG, India.

Ph.D. Thesis

2018 **Anil Goyal**, "Learning a Multiview Weighted Majority Vote Classifier: Using PAC-Bayesian Theory and Boosting", Université de Lyon.