

Mohit Mittal

Data Scientist, Ph.D

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Education

- 2012–2018 **PhD**, Gurukul Kangri University, Computer Science, India
- 2010–2011 **Master of Technology**, Guru Nanak Dev University, Computer Science and Engineering, India
- 2006–2010 **Bachelor of Technology**, Guru Nanak Dev University, Computer Science and Engineering, India

Experience

- 2022–Present **Data Scientist**, Knowtion GmbH, Karlsruhe, Germany
- 2020–2022 **Postdoctoral Researcher**, INRIA, Lille, France

Project entitled: "Inspecting and Debugging Visual Question Answering Systems via Post-hoc Explanations", In this project, our main objective is to provide the inside story of prediction of VQA system to the end user by individual components involved in the prediction. The explainability of deep neural network is complex task but it can be done by machine learning approaches.

Under supervision, Prof. Philippe Preux and Dr. Luis Galárraga

- 2019–2020 **Postdoctoral Researcher**, Kyoto Sangyo University, Kyoto, Japan

Project entitled: "Accurate social media mapping with physical location", The inaccuracies of Geo-tagged data from social media often limits the utility of this data source in microscale analysis (at the street or place of interest level (POI)). Our study supports how social media data could be matched accurately with specific physical locations

Under supervision, Prof. Shinsuke Nakajima and Prof. Yukiko Kawai

- 2018–2019 **Assistant Professor**, Ajay Kumar Garg Engineering College, Ghaziabad, India

In this college, I taught Bachelor and Master degree students some core subjects of computer science. I have engaged students in various research projects

Research Interest

- [1] Machine Learning
- [2] Deep Learning
- [3] Statistical Analysis

Technical Skills

- [1] Python language
- [2] Tensorflow, numpy libraries, pandas, scikit learn, pytorch
- [3] CNN models such as VGG16, VGG19, Resnet50, Resnet152, Faster r-cnn, Mask r-cnn, YOLOv3.
- [4] machine learning such as logistic regression, SVM, K-means, DBSCAN, random forest, XGBOOST etc.
- [5] NLP such as Nltk library, tf-idf, word2vec, Doc2vec, Topic modeling.

Publications

International Conferences

- [C1] M.Mittal, P.Siriaraya, C.Lee, Y.Kawai, T.Yoshikawa and S.Shimojo, "Accurate Spatial Mapping of Social Media with Physical Locations", IEEE BSD, Big Data, Los Angeles, USA, 9-12 Dec 2019.
- [C2] P.Siriaraya, Y.Zhang, Y.Wang, Y.Kawai, M.Mittal, P.Jeszszky and A.Jatowt, "Witnessing Crime through Tweets: A Crime Investigation Tool based on Social Media", 27th ACM SIGSPATIAL, Chicago, Illinois, USA, 5-8 Nov 2019.

- [C3] T. Omura, K. Suzuki, P. Siriaraya, M. Mittal, Y. Kawai, and S. Nakajima “Ad Recommendation utilizing user behavior in the physical space to represent their latent interest”, IEEE International Workshop on Big Spatial Data (BSD 2020),USA.
- [C4] Y.Wang, P.Siriaraya, M.Mittal, H. Xie and Y.Kawai “Understanding Multilingual Correlation of Geo-tagged Tweets for POI Recommendation”, W2GIS,2020, China
- [C5] T.Kiriu, M.Mittal, P.Siriaraya , Y.Kawai and S.Nakajima, “Development of an Acoustic AR Gamification System to Support Physical Exercise”, ACM Multimedia, Nice, France, Oct 21-25, 2019.

International Journals

- [J1] M.Mittal, C.Iwendi, S.Khanand A.R. Javed, “Analysis of Security and Energy Efficiency for Shortest Route Discovery in LEACH Protocol Using Levenberg-Marquardt Neural Network and Gated Recurrent Unit for IDS”, ETT, Wiley, 2020.
- [J2] M. Mittal, “Analysis of Energy Efficiency Based on Shortest Route Discovery in Wireless Sensor Network”, International Journal of Advanced Intelligence Paradigms, Jan, 2017.
- [J3] M. Mittal and K. Kumar, “Energy Efficient Homogeneous Wireless Sensor Network Using Self- Organizing Map (SOM) Neural Networks,” IEEE, African Journal of Computing & ICT, Vol 8. No. 1, pp. 179-184, 2015.
- [J4] M. Mittal and K. Kumar, “Quality of Services Provisioning in Wireless Sensor Networks using Artificial Neural Network: A Survey”, International Journal of Computer Application, pp. 28-40, May 2015.

Workshops

- 2020 Participated in a online workshop on “Recent Trends in Computer Science & IT”, Raj Kumar Goel Institute of Technology, Ghaziabad, India, from 13th Jul 2020 to 17th Jul 2020
- 2019 Completed e-Learning Course on “Research Ethics”, Japan Society for the Promotion of Science.
- 2018 Participated in a workshop on “Machine Learning and Data Analytics with Python”, at Ajay Kumar Garg Engineering College, Ghaziabad, India, from 4th Dec 2018 to 08th Dec 2018.
- 2017 Participated in a workshop on “Big Data”, at Graphic Era University, Dehradun, India, from 18th Dec 2017 to 23rd Dec 2017.
- 2017 Participated in a workshop on “Practical Hands on Machine Learning”, at Inmantac Institutes, Ghaziabad, India, from 6th July 2017 to 10th July 2017.
- 2016 Participated in a workshop on “Simulation in Wireless Sensor Network (WSN Kit)”, at MJP Rohilkhand University, Bareilly, UP, India, from 2nd May 2016 to 7th May 2016.
- 2014 Participated in the one day expert session workshop on cloud computing “cloud Sim” in FET organised by department of computer science and Computer Society of India (CSI) (Haridwar Chapter), Gurukul Kangri Vishwavidyalaya, Haridwar, october 2014.

Personal Information

Father’s name –Gopal Krishan.

Date of Birth – 02, May 1988.

Marital Status - Married.

Languages Known - English, Hindi

Nationality – Indian.

Country visited- Japan,USA,France, Belgium, Italy and Netherlands.

My website-<https://mohitmittal1988.github.io/mm/>