

Current Research Interests:

Machine Learning, Deep Learning and Natural Language Processing

Education:

Master of Science, Computer Science and Engineering (2013-2016) International Institute of Information Technology, Hyderabad (IIIT) Advisors: Dr. Manish Gupta, Principal Applied Scientist, Microsoft Bing, Hyderabad Dr. Vasudeva Varma, Professor and Dean Research, IIIT, Hyderabad	9/10
B.Tech in Computer Science and Engineering (2009-2013) Heritage Institute of Technology, West Bengal University of Technology, Kolkata	8.98/10
Higher Secondary Examination (2007-2009) St. John's Diocesan Girls School, West Bengal Council of Higher Secondary Education, Kolkata	82 %
Secondary Examination (2007) St. John's Diocesan Girls School, West Bengal Board of Secondary Education, Kolkata	81 %

Publications:

- **Cognitive Couture : AI tools to aid the creative process of fashion designers** (*Under Review*)
Vikas Raykar, Ayushi Dalmia, Priyanka Agarwal, Raghav Singh, Abhishek Bansal
IBM Journal of Research and Development
- **Style-based Item Recommendation from Fashion Blogs** (*To submit*)
Ayushi Dalmia, Sachindra Joshi, Vikas C. Raykar, Raghavendra Singh
- **Towards Interpretation of Node Embeddings**
Ganesh J, Ayushi Dalmia, Manish Gupta
WWW Workshop on Learning Representations for Big Networks, 2018
- **Metrics for Community Analysis: A Survey**
ACM Computing Surveys (CSUR), 2017
Tanmoy Chakraborty*, Ayushi Dalmia*, Animesh Mukherjee, Niloy Ganguly
- **Query-based Evolutionary Graph Cuboid Outlier Detection**
ICDM Workshop on Data Mining in Networks, Spain, 2016
Ayushi Dalmia, Manish Gupta, Vasudeva Varma
- **Query-based Graph Cuboid Outlier Detection**
International Conference on Advances in Social Network Analysis and Mining (ASONAM), France, 2015
Ayushi Dalmia, Manish Gupta, Vasudeva Varma
- **Twitter Sentiment Analysis: The good, the bad and the neutral!**
International Workshop on Semantic Evaluation (SemEval), Denver, Colorado, 2015
Ayushi Dalmia, Manish Gupta, Vasudeva Varma
- **Scalable Hierarchical Recommendations using Spatial Autocorrelation**
International Conference on Big Data Science and Computing (BigData), Beijing, China, 2014
Ayushi Dalmia, Joydeep Das, Prosenjit Gupta, Subhashis Majumder, and Debarshi Dutta

Patents:

- **Identification of Apparel Based on Body Shape** (*Filed*)
Ayushi Dalmia, Priyanka Agrawal, Raghavendra Singh, Sachindra Joshi, Vikas C. Raykar, IBM Research, India
- **System and Method for Size/Fit based Recommendation while Fashion Shopping** (*Filed*)
Amrita Saha, Priyanka Agrawal, Pankaj S Dayama, Srikanth G Tamilselvam, Vikas C. Raykar, Ayushi Dalmia.
- **System for Bidding on Multi-modal subspaces for e-commerce searches** (*Filed*)
Ayushi Dalmia, Priyanka Agarwal, Jaikrishnan Hari, Raghavendra Singh, Sachindra Joshi, Vikas C. Raykar
- **System for Bidding on Multi-modal subspaces for e-commerce searches** (*Filed*)
Ayushi Dalmia, Priyanka Agarwal, Jaikrishnan Hari, Raghavendra Singh, Sachindra Joshi, Vikas C. Raykar

- **System and Method for Ranking Trending Item-Sets in E-commerce** (*Published*)
Ayushi Dalmia, Priyanka Agarwal, Raghavendra Singh, Sachindra Joshi, Vikas C. Raykar
- **System and Method for Completing the Look based on Style Rules** (*Published*)
Ayushi Dalmia, Priyanka Agarwal, Jaikrishnan Hari, Raghavendra Singh, Sachindra Joshi, Vikas C. Raykar

Work Experience:

Jul'16 - Present	Software Engineer at IBM Research, India Working in the Cognitive Fashion team with a focus on building machines to bridge the gap between online and offline shopping experience. The work involves proposing and implementing novel ideas and solutions to address the problems in the fashion industry. Currently leading the module for Complete the Look while making contributions to Watson Prints, Natural Language and Visual Search while working closely with the clients.
Jan'14 - Apr'16	Graduate Research Assistant at Search and Information Extraction Lab, IIIT Hyderabad. Worked on Sandhan, a multi-institutional project funded by Department of Defence (Govt. of India) to build a cross-lingual search engine where my responsibilities are to contribute to the query processing pipeline which involves development of query translation and transliteration engine to enable cross language search in 9 different Indian Languages.
Aug'14 - Dec'15	Teaching Assistant Machine Learning assisting Prof. C.V. Jawahar, Web Mining assisting Prof. Manish Gupta, Information Retrieval assisting Prof. Vasudeva Varma.
May'12 - July'12	Undergraduate Summer Research Intern at Department of CSE, IIT, Kharagpur Worked with Dr. Tanmoy Chakraborty, Dr. Niloy Ganguly and Abhijnan Chakraborty on designing algorithms for overlapping community detection in citation networks.

Awards and Achievements:

- Received the **ACM-W** Scholarship for attending ICDM 2016.
- **Best Poster Award** at BigData 2014.
- Secured **AIR 553** in the paper Computer Science and Information Technology in GATE 2013.(top 0.25 %)
- **Founding chair** and member of ACM Student Chapter, Heritage Institute of Technology, Kolkata (*December, 2011-May, 2013*), awarded the Certificate of Service by ACM for the same.
- Secured departmental rank **4th out of 120** at Heritage Institute of Technology, Kolkata.
- Received scholarship from Government of India, Ministry of Human Resource Development, Department of Higher Education under the Central Sector Scheme of Scholarships for College and University Students. (*2009*)

Technical Skills:

Programming Languages
Database
Libraries and Tools

Python
MongoDB, Elasticsearch, CouchDb, Redis
Tensorflow, SciPy, NetworkX, iGraph, SNAP, L^AT_EX, Git, Scrapy

Relevant Course Work:

Web Mining
Natural Language Applications
Statistical Methods in AI

Information Retrieval and Extraction
Data Warehousing and Mining
Machine Learning

Extra Curricular Activities:

- Organiser of AI for fashion, workshop in KDD 2018
- PC Chair for Machine Learning Meets Fashion, workshop in KDD 2017
- Reviewer for MIKE 2015, ICON 2015, ICON 2016.
- Attended a short-term course and workshop on Machine Learning and Complex Networks at IIT Kharagpur. (*February, 2015*)
- Mentor for LearnIT Girl 2015, 2016, a mentorship program for women around the globe.