Prerna Agarwal

44, ITI Staff Campus, Maharani Bagh
New Delhi, India
+91 9654645691
prerna15045@iiitd.ac.in

EDUCATION	*M.Tech, Computer Science, Data Engineering*	CGPA: 9.4
	Indraprastha Institute of Information Technology, New Delhi	2015-2017
	B.Tech in Computer Science	CGPA: 9.82
	Jamia Millia Islamia, New Delhi	2011-2015
	Class 12th	91.4 %
	Dev Samaj Modern School, New Delhi	2010-2011
	Class 10th	87.8 %
	Dev Samaj Modern School, New Delhi	2008-2009

RESEARCH INTERESTS

Machine Learning, Computer Vision, Deep learning, Spatial Data Mining, Information Retrieval

TECHNICAL ELECTIVES

Semantic Web, Program Analysis, Spatial Data Mining, Information Retrieval, Probabilistic Graphical Model, Data Mining, Graduate Algorithms, Collaborative Filtering

PUBLICATIONS

- P. Agarwal, R. Verma, Venkata M. V. Gunturi, "Discovering Spatial Regions of High Correlation", in SSTDM (ICDM Workshop) 2016, IEEE computer society.
- P. Agarwal, R. Ahmed, T. Ahmad, "Identification and Ranking of Key Persons in a Social Networking Website using Hadoop and Big Data Analytics", International Conference on Advances in Information Communication Technology and Computing 2016, ACM.
- P. Agarwal, R. Verma, A. Mallik, "Ontology Based Disease Diagnosis System with Probabilistic Inference", India International Conference on Information Processing 2016, IEEE computer society.

AWARDS AND ACHIEVEMENTS

- Presented paper in SSTDM (ICDM workshop) 2016.
- Awarded with Dean's excellence award for excellent academic performance during the year 2015-2016.
- 12th rank and selected as Scientist in Computer Science in ISRO (Indian Space Research Organization) in April 2016.
- Awarded with Gold Medal for scoring highest CGPA in B.Tech, 2015, Jamia Millia Islamia.
- 3rd prize in Innovation Challenge (Research Showcase 2016) for the project Disease Diagnosis System based on Probabilistic Logic.
- Awarded with 1st prize in Technical Quiz held in Research Showcase 2016.

- Secured All India Rank 442 with a percentile of 99.6 in Graduate Aptitude Test in Engineering 2015.
- Scholarship awarded for consecutive 3 years for holding top rank in B. Tech 2nd, 3rd and 4th year, Jamia Millia Islamia.
- Science Stream topper of Dev Samaj Modern School, 2011.
- 2nd rank in National Science Olympiad 2011.

M.TECH THESIS *Mobility Assistance for Visually Impaired people:*
Advisor: Dr. Chetan Arora, IIIT Delhi
Co-Advisor: Dr. M. Balakrishnan, Deputy Director, IIT Delhi.
To develop a mobility assistance device for blind people to detect obstacles, road, pavement, animals etc. using openCV and machine learning techniques and further using deep learning techniques.

POSITION OF RESPONSIILITY
- Member of Organising team, Research Showcase 2016, IIIT Delhi.
- Teaching assistant for the course Data Mining, Aug,15-Dec,15 and Aug,16-Dec, 16.
- Teaching assistant for the course Data Structures and Algorithms, Jan,16-May,16.
- General Secretary of Subject Association, Jamia Millia Islamia, 2013-2015.
- Class Representative in B.Tech, Jamia Millia Islamia, 2012-2015.
- Organised various events in fests, Jamia Millia Islamia, 2012-2015.
- Member of Computer Society of India, Jamia Millia Islamia, 2011-2015.
- Team Representative of School Team in The Global Education and Leadership Foundation, 2009-2011.

OTHER RESEARCH PROJECTS
- *Elephant Accident Prevention:*   *Advisor:* Dr. P. B. Sujit, IIIT Delhi
Project aimed at collecting seismic data from elephant corridors that cross railway tracks and using that to prevent elephant-train accidents.
- *Movie Recommender System for Indian Cinema:*
Advisor: Dr. Angshul Majumdar, IIIT Delhi
Project aimed at collecting Indian users data about movies and demographics through crowd sourcing and building an efficient recommendation system that works in the Indian context, covering regional cinema.
- *Multimodal Search:*   *Advisor:* Dr. Sameep Mehta, IBM Research
To build a multimodal search engine using deep learning. Image + Audio + Text based indexing, ranking and searching.
- *Probabilistic Pointer Analysis:*   *Advisor:* Dr. Rahul Purandare, IIIT Delhi
To provide a solution to the problem of pointer analysis on Java classes to find the probability of each object pointing to another object using SOOT.
- *Optical Word Recognition:*   *Advisor:* Dr. Chetan Arora, IIIT Delhi
A probabilistic graphical model approach to solve the problem of word recognition in images improving its accuracy and building different models.

SKILLS   *Programming Languages:* C, C++, Java, Python
Tools and Technologies: Hadoop and MapReduce, Android, SOOT, SPARQL, OpenCV