Shrey Gupta

POSTDOCTORAL RESEARCHER

Boston College, MA

✉ shrey.gupta@bc.edu | 🏠 shrey-gupta.github.io | 🎓 Google Scholar: Shrey Gupta

Education

Emory University   *Georgia, US*
PHD COMPUTER SCIENCE AND INFORMATICS   *August 2019 - December 2024*
- Advisors: Dr. Avani Wildani and Dr. Andreas Züfle
- PhD Thesis: Transfer and Integration of Knowledge for Irregular Spatiotemporal Data.

Indraprastha Institute of Information Technology (IIIT)-Delhi   *Delhi, India*
MTECH IN COMPUTATIONAL BIOLOGY   *August 205 - December 2017*
- Advisor: Dr. Vinod Scaria
- Masters Thesis: A Study of Biomedical Information Extraction Systems.

Guru Gobind Singh Indraprastha University (GGSIPU)   *Delhi, India*
BTECH IN COMPUTER SCIENCE AND ENGINEERING   *August 2011 - May 2015*
- Undergraduate Thesis: Abstractive Text Summarization using Bag-of-words Encoder.

Professional Experience

01/25 -	**Postdoctoral Researcher**, Boston College	
	Advisors: Dr. Yi Ming and Dr. George Mohler	
08/19-12/24	**Graduate Research Assistant**, Emory University, GA	
	Advisors: Dr. Avani Wildani, Dr. Yang Liu and Dr. Andreas Züfle	
08/18-04/19	**Research Assistant**, Wayne State University, MI	
	Advisor: Dr. Susan Arslanturk	
05/15-06/18	**Thesis Student**, CSIR-IGIB, Delhi	
	Advisor: Dr. Vinod Scaria	
05/14-08/15	**Research Intern**, IIT Madras, Chennai	
	Advisor: Dr. Rupesh Nasre	
05/13-08/13	**SWE Intern**, Futor Labs, Delhi	

Publications

PUBLISHED

Gupta, S., Wildani, A., & Liu, Y. (in press). Spatially adaptive PM2.5 estimation in low-sensor regions using variational Gaussian processes. Proceedings of the 2025 IEEE International Conference on Data Science and Advanced Analytics (DSAA).

Gupta, S., Park, Y., Bi, J., Gupta, S., Züfle, A., Wildani, A., & Liu, Y. (2024, August). Spatial transfer learning for estimating PM 2.5 in data-poor regions. In Joint European conference on machine learning and knowledge discovery in databases (pp. 385-400). Cham: Springer Nature Switzerland.

Gupta, S., Karduni, A., & Wall, E. (2023, June). Belief Decay or Persistence? A Mixed⊠method Study on Belief Movement Over Time. In Computer Graphics Forum (Vol. 42, No. 3, pp. 111-122).

Gupta, S., Bi, J., Liu, Y., & Wildani, A. (2023). Boosting for regression transfer via importance sampling. International Journal of Data Science and Analytics, 20(1), 75-86.

Vatsyayan, A., Sharma, P., **Gupta, S.**, Sandhu, S., Venu, S. L., Sharma, V., ... & Scaria, V. (2021). DALIA-a comprehensive resource of Disease Alleles in Arab population. PLoS One, 16(1), e0244567.

Balivada, N., Bhatt, S., **Gupta, S.**, & Gupta, S. TerraForm: A task hierarchy-based federated meta-learning framework.

In Preparation

Gupta, S., Ming, Y., & Mohler, G. Forecasting drought-based extreme events using an explainable AI (XAI) approach.

Awards, Fellowships, & Grants

2025	**Travel Grant**, IEEE DSAA	*$ 1200*
2022	**Travel Grant**, ACM SIGSPATIAL	*$ 1,000*
	Registration Grant, ACM CIKM	*$ 700*
2020	**Traval Grant**, USENIX FAST	*$ 1200*
2019	**Richard Barber Interdisciplinary Research Fellowship**, Wayne State University (contributed writing and analysis with PI: Dr. Susan Arslanturk)	*$ 20,000*
2015-2017	**100% Tuition Scholarship for Master's Degree**, Department of Biotechnology, India	*Rs 2,00,000*
	Graduate Aptitude Test in Engineering (GATE) Fellowship, MHRD, Indian Government	*Rs 1,92,000*

Presentations

Talks

[10/2025]. Spatially Adaptive PM2.5 Estimation in Low-Sensor Regions using Variational Gaussian Processes. DSAA, 2025.

[12/2024]. Spatial Transfer Learning for Estimating PM 2.5 in Data-poor Regions. Talk @SLAC Seminar Series, Remote.

[09/2024]. Spatial Transfer Learning for Estimating PM 2.5 in Data-poor Regions. ECML-PKDD, Lithuania.

[05/2023]. Belief Decay or Persistence? A Mixed-method Study on Belief Movement Over Time. EuroVis, Germany.

[11/2022]. Measuring Persistence of Beliefs. Human Computer Interaction (HCI) course @Emory University.

[02/2022]. Transfer Learning for Determining PM 2.5 for Data-Deficient Regions". GRITS Seminar @Emory University.

[10/2021]. Supervised Learning models for Knowledge Transfer. SymbiosysLab @Emory University.

Posters

[05/2025] **Gupta, S**, Ming, Y, Mohler G. Harvesting Deep Networks: Towards Designing a Robust Crop-yield Estimation Model. BC Talk AI @Boston College, MA.

[09/2024] **Gupta, S**, Avani Wildani, Andreas Züfle. Transfer and Integration of Knowledge for Spatiotemporal Data. Doctoral Symposium @ECML-PKDD, Lithuania.

[09/2024] **Gupta, S***, Yongbee Park*, Jianzhao Bi, Suyash Gupta, Andreas Züfle, Avani Wildani & Yang Liu. Spatial Transfer Learning for Estimating PM 2.5 in Data-poor Regions. ECML-PKDD, Lithuania.

[10/2022] **Gupta, S**, Jianzhao Bi, Yang Liu, Avani Wildani. ISTRBoost: Importance Sampling Transfer Regression using Boosting. Georgia Statistics Day @University of Georgia, GA.

Teaching Experience

Fall 2020	**Introduction to Python Programming [CS130R]**, Course Instructor	*Emory U*
Spring 2019	**Fundamental Structures in Computer Science [CSC 1500]**, Course Instructor	*Wayne State U*
Fall 2018	**Fundamental Structures in Computer Science [CSC 1500]**, Course Instructor	*Wayne State U*
Fall 2019	**Introduction to Computer Science [CS170]**, Teaching Assistant	*Emory U*
Spring 2017	**Introduction to Quantitative Biology**, Teaching Assistant	*IIIT-Delhi*
Fall 2016	**Computer Architecture**, Teaching Assistant	*IIIT-Delhi*
Spring 2016	**Computer Networks**, Teaching Assistant	*IIIT-Delhi*
Fall 2015	**Computer Systems Management**, Teaching Assistant	*IIIT-Delhi*
Summer'15	**Data Structures and Algorithms**, Teaching Assistant	*IIIT-Delhi*

Mentoring

7/25-	**Anne-Sophie Fleck**, MS, University of Bonn	*Germany*
7/25-	**Katie Baek**, UG Junior, Boston College	*MA*
7/25-	**Olivia Addeo**, UG Junior, Boston College	*MA*
7/25-	**Samuel Rector**, UG Junior, Boston College	*MA*
7/25-	**Aditya Venkatram**, UG Junior, Boston College	*MA*
1/25-	**Amy Zheng**, UG Junior, Boston College	*MA*
1/25-	**Zhuohan Chi**, MS Biostatistics, Emory University	*GA*
1/25-5/25	**Harshit Nagpal**, UG Junior, BITS Pilani	*India*
5/24-7/25	**Shashank Shreeedhar Bhatt**, Microsoft Research	*India*
5/24-5/25	**Aitijhya Mondal**, UG Senior, BITS Pilani	*India*
1/23-	**Yongbee Park**, Data Scientist @Ingkle	*South Korea*
1/20-7/21	**David Wang**, Undergraduate Senior, Emory University	*GA*
7/20-12/20	**Xiuyi Qian**, Undergraduate Sophomore, Emory University	*GA*

Service, Outreach & Professional Development

SERVICE

2025	**IEEE DSAA**, Session Chair: Learning with Structure	*BHX, UK*
2022	**ACM SIGSPATIAL**, Student Volunteer	*Seattle, WA*
2022	**ACM CIKM**, Student Volunteer	*Atlanta, GA*
2017	**Functional Genomics and Network Biology Symposia, IIIT-Delhi**, Organizer	*Delhi, India*
2022	**Cohere for AI**, Community Member	*Remote*
2022	**ML Collective**, Community Member	*Remote*

PEER REVIEW

Reviewer: AAAI [2025], Journal of Adolescence [2025], ICLR [2025], ICANN [2025], IJGIS [2024], IEEE TMC [2024], PacificVis [2024], HRI [2024], SSTD [2023]

External Reviewer: IJCAI [2024], EuroSys [2024], IEEE Vis [2022], Usenix HotOS [2020]