

Shrey Gupta

POSTDOCTORAL RESEARCHER

Boston College, MA

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Education

Emory University

PHD COMPUTER SCIENCE AND INFORMATICS

- Advisors: Dr. Avani Wildani and Dr. Andreas Züfle
- PhD Thesis: Transfer and Integration of Knowledge for Irregular Spatiotemporal Data.

Georgia, US

August 2019 - December 2024

Indraprastha Institute of Information Technology (IIIT)-Delhi

MTECH IN COMPUTATIONAL BIOLOGY

- Advisor: Dr. Vinod Scaria
- Masters Thesis: A Study of Biomedical Information Extraction Systems.

Delhi, India

August 2015 - December 2017

Guru Gobind Singh Indraprastha University (GGSIPU)

BTECH IN COMPUTER SCIENCE AND ENGINEERING

- Undergraduate Thesis: Abstractive Text Summarization using Bag-of-words Encoder.

Delhi, India

August 2011 - May 2015

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.

IN REVIEW

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	Travel 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

[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 Shreedhar 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

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], SSTO [2023]

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