

# Shrey Gupta

POSTDOCTORAL RESEARCHER

Boston College, MA

[✉ shrey.gupta@bc.edu](mailto:shrey.gupta@bc.edu) | [🏡 shrey-gupta.github.io](https://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 PM<sub>2.5</sub> 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	<b>Travel Grant</b> , IEEE DSAA	\$ 1200
2022	<b>Travel Grant</b> , ACM SIGSPATIAL <b>Registration Grant</b> , ACM CIKM	\$ 1,000 \$ 700
2020	<b>Traval Grant</b> , USENIX FAST	\$ 1200
2019	<b>Richard Barber Interdisciplinary Research Fellowship</b> , Wayne State University (contributed writing and analysis with PI: Dr. Susan Arslanturk)	\$ 20,000
2015-2017	<b>100% Tuition Scholarship for Master's Degree</b> , Department of Biotechnology, India <b>Graduate Aptitude Test in Engineering (GATE) Fellowship</b> , MHRD, Indian Government	Rs 2,00,000 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	<b>Introduction to Python Programming [CS130R]</b> , Course Instructor	Emory U
Spring 2019	<b>Fundamental Structures in Computer Science [CSC 1500]</b> , Course Instructor	Wayne State U
Fall 2018	<b>Fundamental Structures in Computer Science [CSC 1500]</b> , Course Instructor	Wayne State U
Fall 2019	<b>Introduction to Computer Science [CS170]</b> , Teaching Assistant	Emory U
Spring 2017	<b>Introduction to Quantitative Biology</b> , Teaching Assistant	IIIT-Delhi
Fall 2016	<b>Computer Architecture</b> , Teaching Assistant	IIIT-Delhi
Spring 2016	<b>Computer Networks</b> , Teaching Assistant	IIIT-Delhi
Fall 2015	<b>Computer Systems Management</b> , Teaching Assistant	IIIT-Delhi
Summer'15	<b>Data Structures and Algorithms</b> , Teaching Assistant	IIIT-Delhi

## Mentoring

---

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

## Service, Outreach & Professional Development

---

### SERVICE

2022	<b>ACM SIGSPATIAL</b> , Student Volunteer	Seattle, WA
2022	<b>ACM CIKM</b> , Student Volunteer	Atlanta, GA
2017	<b>Functional Genomics and Network Biology Symposia, IIIT-Delhi</b> , Organizer	Delhi, India
2022	<b>Cohere for AI</b> , Community Member	Remote
2022	<b>ML Collective</b> , 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]