

Ritika Singh

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[LinkedIn: ritika-singh](#)

Education

Ph.D. in Artificial Intelligence, IIT Delhi	Aug 2021 – Jun 2026
Supervisor: Prof. Sumeet Agarwal, Dr. Alex De Figueiredo	
CGPA: 8.5 / 10	
<i>Relevant Courses:</i> Mathematical Foundations of CS, Data Mining, Research Writing, Adv. Machine Learning, Social Computing	
<i>Research Interests:</i> Computational Social Science, Bayesian Statistics, Cognitive Science	
M.Tech in Data Analytics, JIIT Noida	Aug 2017 – Jul 2019
CGPA: 7.6 / 10	
B.E. in Computer Science, Pune Institute of Computer Technology	Aug 2013 – Jul 2017

Awards

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- **TCS Research Scholar Fellowship (2023–2027)**
 - **Mitacs Globalink Research Award (2024–2025)**
 - **AstraZeneca's Young Health Programme (YHP) Changemaker Scholar (30th AFS Youth Assembly - 2025)**

Published Work

[Bridging the Immunization Gap: Predictive Models for Zero-Dose and Vaccination Dropout in India](#)

Ritika Singh, Mira Johri, Sumeet Agarwal *ACM COMPASS, July 2025*

[Quantifying the Role of Maternal Recall in Estimates of Routine Immunisation Rates in India: A Large-Scale Sub-National Bayesian Modelling Study](#)

Ritika Singh, Alexandre de Figueiredo, Sumeet Agarwal,
Misha Mishra, Devyani Agarwal *ACM COMPASS, July 2024*

[POSTER : Predictive Modelling of Zero-Dose Children and Vaccination Dropout in India Reveals Common Drivers of Immunisation Shortfalls](#)

Ritika Singh, E. Spandana, Mira Johri, Sumeet Agarwal *Gavi Zero-Dose Learning Week*

[DATA STUDY REPORT : Exploring Multimorbidity and Patterns of Long-Term Conditions in England Using Open Prescription and Primary Care Data](#)

Ritika Singh, Data Study Group Team 2023. *The Alan Turing Institute*

Skills

Languages: Python, R

Tools: qGIS, GIT, PostgreSQL, MySQL, SQLite, Android Studio

Experience

Teaching Assistant, ScAI, IIT Delhi	ongoing
Advanced Machine Learning (Aug 2023 – Ongoing)	
Bayesian Modelling (Jan – May 2023)	
Machine Learning (Aug – Dec 2021)	
The AFS Youth Assembly	August 2025
Delegate - AstraZeneca sponsored	
Globalink Research Award for research in Canada	May – July 2025
Université de Montréal	
UN and SIPRI Workshop	Nov 2023
Responsible AI for Peace and Security	
The Alan Turing Institute - Data Study Group	Mar 2023
Exploring Multimorbidity and Patterns of Long-term Conditions in England	
SRM Institute of Science and Technology	Jan 2021 – Aug 2021
Assistant Professor – Artificial Intelligence	
Deloitte USI (Risk and Financial Advisory)	Aug 2019 – Jan 2021
Solution Delivery Analyst	
Election Commission of India	Jan 2019 – Aug 2019
Data Science and Statistical Expert	
Reserve Bank of India (Strategic Research Unit)	Aug 2018 – Jan 2019
Data Science Research Associate	

Projects

Understanding Inference in Immunisation Attitudes (Ongoing)	
Multi-country study on how socioeconomic factors shape vaccine trust and behavior.	
Levels, determinants, and distribution of early childhood development in rural Uttar Pradesh, India	
Developing machine learning models to identify the determinants of variations in ECD outcomes.	
Zero-Dose Prediction Using ML	
Developing predictive models for early identification of zero-dose children.	
Geo-Spatial Modelling of Vaccine Coverage	
Sub-national analysis to identify vaccination "coldspots" in India.	
ECI Projects	
Lok Sabha 2019 Dashboard, Live data streaming and analysis; ARIMA, LSTM, Tableau.	
RBI Projects	
Bhavantar Bhugtan Yojana, mobile banking adoption studies.	
Miscellaneous	
News Aggregator (Hives Online) Android app dev.	