

Email: s.mishra@ic.ac.ukWeb: <https://s-mishra.github.io>**Research Profile**

My current research focuses on developing flexible and scalable models for understanding various spatiotemporal data, for example, epidemics (COVID-19, Malaria, HIV), crime and social media. My work focuses on algorithms to model point processes with classical machine learning techniques as well as using modern deep learning networks, mainly recurrent networks. I have led and produced high impact work (published in journals such as Nature, Science, and the Lancet) that has garnered 3.9k+ citations. My career H-Index is 19 and I10 index is 21.

Education, Academic and Teaching**Education**

2006 – 2010	PhD	Australian National University – Computational Social Science, Research School of Computer Science <i>Thesis title: Linking Models for Collective Attention in Social Media.</i>
2005 – 2006	MSc	Australian National University – Machine Learning, Research School of Computer Science <i>Thesis title: Implementation and Experiments with Novel Parallel and Bursty Non-parametric Topic Models</i>
2002 – 2005	BEng	University of Pune - Computer Engineering, Department of Computer Engineering <i>Thesis title: The manufacture of bioethanol from corn starch.</i>

Academic Positions

2019 - present	Imperial College London – Postdoctoral researcher in Geostatistics
2015 - 2019	Australian National University – Research Assistant: Computational Media Lab
2014 - 2015	Data61 (CSIRO) – Research Assistant: <i>Optimisation research Group</i>
2012 - 2014	Australian National University/Data61(NICTA) – Research Assistant: <i>Machine learning research Group</i>

Teaching and Supervision Experience

2020 - Present	MSc secondary supervisor (Yiyong Luo)
2020 - Present	MSc secondary supervisor (Tom Keane)
2019 - Present	PhD secondary supervisor (Helen Coupland)
2019	Undergraduate Summer Project secondary supervisor (Avish Vijayraghavan)
2018 - 2019	Australian National University – Co-lecturer, Introduction to Data Management, Analysis and Security
2017 - 2018	Australian National University – Co-lecturer, Introduction to Programming for Data Scientists
2013 - 2018	Australian National University – Head Teaching Assistant, Document Analysis
2013 - 2014	Australian National University – Head Teaching Assistant, Introduction to Programming for Scientists
2008 - 2011	University of Pune - Head Teaching Assistant, Robotics

Grants

2020	Imperial COVID-19 Response Fund (£46,975) (Co-I)
2020	Microsoft AI for Health program (\$130,000) (Co-I)
2018	Amazon AWS Compute Grant (\$45,000) (Co-I)

Consulting

2020	New York State: Advisory group for COVID-19 response
2020	Herbert Smith Freehills: Advisory group for COVID-19 response

Selected Invited/Keynote speaker Presentations

2020	Keynote lecture: Scalable Mechanistic Bayesian Models for COVID-19 Transmissions, Stan-Con 2020
2020	Invited lecture: Estimating the number of infections and the impact of non-pharmaceutical interventions on COVID-19, European Consortium of Mathematics in Industry
2020	Invited lecture: Estimating the number of infections and R(t) for COVID-19 with a Semi-mechanistic Hierarchical Bayesian Model, DeepMind
2019.	Invited lecture: VAE to learn functions, RSS 2019, Belfast
2019	Invited lecture: Linking Models of Popularity in Social Media, Monash University

Scholarships, prizes and awards

2018	ICWSM Student Travel Award
2018	ANU Vice Chancellor Travel Grant
2018	ANU Domestic PhD scholarship

2016	CIKM Vice Chancellor Travel Grant
2018	Australia International Student PhD scholarship
2018	KDD Travel Grant
2012	ABU Robocon Misumi Sponsors Award (Team India)
2012	ABU Robocon Mabuchi Motor Award (Team India)

Publication Summary

Total number of peer-reviewed publications: 24

Conference publications: 5

Citation information: 3,900+ Citations

H-index: 19

I10-Index: 21

3 Papers published in Nature (2 first author),

3 Papers published in Science (1 first author, 1 senior author),

2 Paper in Nature Communications (1 first author)

1 Paper in the Lancet,

1 Upcoming Nature Paper (Senior author)

1 Upcoming Nature Communications Paper (first author)

Selected Publications

1. **Mishra, S.,** Flaxman, S., , Gandy, A. *et al.* Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe. *Nature* 584, 257–261 (2020). <https://doi.org/10.1038/s41586-020-2405-7> **(Equal contribution first author)**
2. **Mishra, S.,** Volz, E., Chand, M. *et al.* Assessing transmissibility of SARS-CoV-2 lineage B.1.1.7 in England. *Nature* (2021). <https://doi.org/10.1038/s41586-021-03470-x> **(Equal contribution first author)**
3. **Mishra, S.,** Faria, N. R., Mellan, T. A., Whittaker, C., Claro, I. M., Candido, D. d. S.,....Sabino, E. C. (2021). Genomics and epidemiology of the P.1 SARS-CoV-2 lineage in Manaus, Brazil. *Science*, eabh2644. doi: 10.1126/science.abh2644**(Equal contribution first author)**
4. **Mishra, S.,** Unwin, H.J.T., Bradley, V.C. *et al.* State-level tracking of COVID-19 in the United States. *Nat Commun* 11, 6189 (2020). <https://doi.org/10.1038/s41467-020-19652-6> **(Equal contribution first author)**
5. Monod, Mélo die, et al. "Age groups that sustain resurging COVID-19 epidemics in the United States." *Science*, vol. 371, no. 6536, 26 Mar. 2021, p. eabe8372, doi:10.1126/science.abe8372. **(Senior author)**
6. Okell, Lucy C., et al. "Have deaths from COVID-19 in Europe plateaued due to herd immunity?" *Lancet*, vol. 395, no. 10241, 20 June 2020, pp. e110-e111, doi:10.1016/S0140-6736(20)31357-X.

Full publication lists

Google Scholar

<https://scholar.google.co.uk/citations?user=RqbpaXcAAAAJ&hl=en>