

Dr Soumya Banerjee

Data Scientist, MRC Epidemiology Unit

Email

Work: sb2333@cam.ac.uk

Personal: neel.soumya@gmail.com

Web

ORCID: orcid.org/0000-0001-7748-9885

Personal: sites.google.com/site/neelsoumya/Home

Google Scholar: scholar.google.com/citations?user=WQwMsyQAAAAJ&hl=en

Other: github.com/neelsoumya

Education

Degrees

PhD University of New Mexico, USA

Teaching Activity

Courses taught

Introduction to Machine Learning

2019-present

Grants

Medical Research Council, MICA: Mental Health Data Pathfinder: University of Cambridge, Cambridgeshire & Peterborough NHS Foundation Trust, and Microsoft, £1,496,194

2018-2020

Publications

Banerjee, S. (2021). An Artificial Immune System Approach to Automated Program Verification: Towards a Theory of Undecidability in Biological Computing. *Interdisciplinary Description of Complex Systems*, 19(4), 493-501. doi:[10.7906/indecs.19.4.3](https://doi.org/10.7906/indecs.19.4.3)

Banerjee, S. (2021). Lymph node inspired computing: towards immune system inspired human-engineered complex systems. *Interdisciplinary Description of Complex Systems*, 19(4), 502-510. doi:[10.7906/indecs.19.4.4](https://doi.org/10.7906/indecs.19.4.4)

Banerjee, S., Lio, P., Jones, P., & Cardinal, R. (n.d.). A class-contrastive human-interpretable machine learning approach to predict mortality in severe mental illness. *npj Schizophrenia*. doi:[10.1038/s41537-021-00191-y](https://doi.org/10.1038/s41537-021-00191-y)

Banerjee, S. (2021). Life as we do not know it. In *Proceedings of the International Conference on Thermodynamics*. International Association for the Integration of Science and Engineering (IAISAE). Retrieved from <https://iaisae.org/wp-content/uploads/w152.pdf>

Banerjee, S. (2020, July 1). A ROADMAP FOR A COMPUTATIONAL AND INFORMATIONAL THEORY OF LIFE. In *INTERNATIONAL CONFERENCE ON THERMODYNAMICS 2.0*. Retrieved from <https://iaisae.org/index.php/publications/>

Banerjee, S. (n.d.). Stage Structured Hybrid Model for Complex Systems Modelling. *Journal of Brief Ideas*. doi:[10.5281/zenodo.5504398](https://doi.org/10.5281/zenodo.5504398)

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Cardinal, R. N., Meiser-Stedman, C. E., Christmas, D. M., Price, A. C., Denman, C., Underwood, B. R., . . . Walsh, C. M. (2021). Simulating a Community Mental Health Service During the COVID-19 Pandemic: Effects of Clinician-Clinician Encounters, Clinician-Patient-Family Encounters, Symptom-Triggered Protective Behaviour, and Household Clustering. *Front Psychiatry*, 12, 620842. doi:[10.3389/fpsy.2021.620842](https://doi.org/10.3389/fpsy.2021.620842)

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- Aschenbrenner, D., Quaranta, M., Banerjee, S., Ilott, N., Jansen, J., Steere, B., . . . Uhlig, H. H. (2021). Deconvolution of monocyte responses in inflammatory bowel disease reveals an IL-1 cytokine network that regulates IL-23 in genetic and acquired IL-10 resistance.. *Gut*, 70(6), 1023-1036. doi:[10.1136/gutjnl-2020-321731](https://doi.org/10.1136/gutjnl-2020-321731)
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- Banerjee, S. (2020). Mitigating the Impact of Covid-19 in Conflict Zones. *Interdisciplinary Description of Complex Systems*, 18(4), 446-448. doi:[10.7906/indecs.18.4.4](https://doi.org/10.7906/indecs.18.4.4)
- Banerjee, S. (2020). A Framework for Designing Compassionate and Ethical Artificial Intelligence and Artificial Consciousness. *Interdisciplinary Description of Complex Systems*, 18(2-A), 85-95. doi:[10.7906/indecs.18.2.2](https://doi.org/10.7906/indecs.18.2.2)
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- Banerjee, S. (2019). Towards a Quantitative Model of Epidemics during Conflicts. *Interdisciplinary Description of Complex Systems*, 17(3), 598-614. doi:[10.7906/indecs.17.3.16](https://doi.org/10.7906/indecs.17.3.16)
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- Banerjee, S. (n.d.). A bioinformatics and network analysis framework to find novel therapeutics for autoimmunity. *Network Biology*, 8(1), 44-54. Retrieved from <http://www.iaees.org/>
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- Banerjee, S. (2016, August 1). Forecasting Australian port throughput: Lessons and Pitfalls in the era of Big Data. In *Proceedings of the Annual Conference of the International Association of Maritime Economists*.
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