# SOUMIK PURKAYASTHA

**E-mail:** soumikp@umich.edu **Phone:** +1-734-881-5075

## EDUCATION (in reverse chronological order)

- **University of Michigan, Dept. of Biostatistics** *September 2019 -*
  Graduate student research assistant and Ph.D. student. Current GPA: 4.0+
- **University of Michigan, Dept. of Biostatistics** *September 2019 - April 2021*
  Master of Science in Biostatistics. GPA: 4.0+
- **Indian Statistical Institute** *July 2017 - June 2019.*
  Master of Statistics, First Class. Specialisation: Biostatistics. GPA: 4.0
- **St. Xavier's College (Autonomous), Kolkata** *July 2014 - June 2017.*
  Bachelor of Science (Hons.) in Statistics, First Class. GPA: 4.0

## PROFESSIONAL EXPERIENCE (in reverse chronological order)

- **Apple Inc., Cupertino, USA** May 2021 - August 2021
  *Statistical Analyst* *Internship*
- **Walmart Labs, Bangalore, India** May 2018 - July 2018
  *Statistical Analyst* *Internship*

## COMPUTING SKILLS *Proficiency*

- **Language: R** advanced
- **Language: C++, Python and SQL** intermediate
- **Software: SAS and Minitab** intermediate

## PUBLICATIONS (in reverse chronological order) [1]

**2022**

1. Salvatore, M.*, **Purkayastha, S.***, Ganapathi, L., Bhattacharyya, R., Kundu, R., Zimmermann, L., Ray, D., Hazra, A., Kleinsasser, M., Solomon, S. and Subbaraman, R. and Mukherjee, B. *Lessons from SARS-CoV-2 in India: A data-driven framework for pandemic resilience.* **Science Advances**, 8(24), 2022. *10.1126/sciadv.abp8621*

2. Bhaduri, R.*, Kundu, R.*, **Purkayastha, S.**, Kleinsasser, M., Beesley, L.J., Mukherjee, B. and Datta, J., *Extending the susceptible - exposed - infected - removed (SEIR) model to handle the false negative rate and symptombased administration of COVID19 diagnostic tests: SEIRfansy.* **Statistics in medicine**, 41(13), 2022. *10.1002/sim.9357*

**2021**

3. Zimmermann, L., Bhattacharya, S., **Purkayastha, S.**, Kundu, R., Bhaduri, R., Ghosh, P. and Mukherjee, B. *SARS-CoV-2 Infection Fatality Rates in India: Systematic Review, Meta-Analysis and Model-Based Estimation.* **Studies in Microeconomics** 9(2), 2021. *10.1177/23210222211054324*

4. **Purkayastha, S.**, Kundu, R., Bhaduri, R., Barker, D., Kleinsasser, M., Ray, D. and Mukherjee, B. *Estimating the wave 1 and wave 2 infection fatality rates from SARS-CoV-2 in India.* **BMC Research Notes** 14(262), 2021. *10.1186/s13104-021-05652-2*

5. **Purkayastha, S**, Bhattacharyya, R., Bhaduri, R., Kundu, R., Gu, X., Salvatore, M., Mishra, S. and Mukherjee, B. *A comparison of five epidemiological models for transmission of SARS-CoV-2 in India.* **BMC Infectious Diseases**, 533, 2021. *10.1186/s12879-021-06077-9*

[1] * indicates equal contribution.

**2020**

6. Salvatore, M., Basu, D., Ray, D., Kleinsasser, M., **Purkayastha, S.**, Bhattacharyya, R. and Mukherjee, B. *A comprehensive public health evaluation of lockdown as a non-pharmaceutical intervention on COVID-19 spread in India: National trends masking state level variations.* **BMJ Open**, 10(12), 2020. *10.1136/bmjopen-2020-041778*

7. Giri, S., **Purkayastha, S.**, Hazra, S., Chanda, A., Das, I. and Das, S. *Prediction of monthly Hilsa (Tenualosa ilisha) catch in the Northern Bay of Bengal using Bayesian structural time series model.* **Regional Studies in Marine Science** 39, 2020. *101456: 10.1016/j.rsma.2020.101456*

8. Zhou, Y., Wang, L., Zhang, L., Shi, L., Yang, K., He, J., Zhao, B., Overton, W., **Purkayastha, S.**, and Song, P. *A spatiotemporal epidemiological prediction model to inform county-level COVID-19 risk in the United States.* **Harvard Data Science Review** Special Issue 1 (2020) *10.1162/99608f92.79e1f45e*

9. Tang, L., Zhou, Y., Wang, L., **Purkayastha, S.**, Zhang, L., He, J., Wang, F. and Song, P. *A Review of Multi-Compartment Infectious Disease Models.* **International Statistical Review** 88(2), 2020. *10.1111/insr.12402*

10. **Purkayastha, S.**, Salvatore, M. and Mukherjee, B. *Are women leaders significantly better at controlling the contagion during the COVID-19 pandemic?* **Journal of Health and Social Sciences** 5(2), 2020. *10.1101/2020.06.06.20124487*

11. Ray, D., Salvatore, M., Bhattacharyya, R., Wang, L., Du, J., Mohammed, S., **Purkayastha, S.**, Halder, A., Rix, A., Barker, D., Kleinsasser, M., Zhou, Y., Bose, D., Song, P., Banerjee, M., Baladandayuthapani, V., Ghosh, P., Mukherjee, B. *Predictions, Role of Interventions, and Effects of a Historic National Lockdown in Indias Response to the COVID-19 Pandemic: Data Science Call to Arms.* **Harvard Data Science Review**, Special Issue 1 (2020). *10.1162/99608f92.60e08ed5*

---

## AWARDS

2020 (a) University of Michigan, Department of Biostatistics - Richard G. Cornell Fellowship for outstanding academic performance.

2019 (a) University of Michigan, Michigan Institute of Data Science - Best project at Michigan Data Science Challenge.

(b) Indian Statistical Institute - Sabyasachi Roy Memorial Gold Medal for the best Master's degree project.

2018 (a) Indian Statistical Institute - Scholarship for good academic performance.

2017 (a) Indian Statistical Institute - Scholarship funded by Government of India.

(a) St. Xavier's College - Best Bachelor's degree dissertation.

2016 (a) Indian Science Congress Association - Poster Presentation Award.

---